

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION

HITACHI CONSUMER ELECTRONICS \* Civil Docket No.  
\* 2:10-CV-260  
VS. \* Marshall, Texas  
\*  
\* April 11, 2013  
TOP VICTORY ELECTRONICS \* 1:00 P.M.

TRANSCRIPT OF JURY TRIAL  
BEFORE THE HONORABLE JUDGE RODNEY GILSTRAP  
UNITED STATES DISTRICT JUDGE

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19 P R O C E E D I N G S

20 (Jury out.)

21 COURT SECURITY OFFICER: All rise.

22 THE COURT: Be seated, please.

23 Do I understand there's an issue,

24 Counsel, to be taken up before the jury's brought in?

25 MR. PLIES: Yes, Your Honor.

1 MR. BERLINER: Yes, Your Honor.

2 THE COURT: You may proceed. I don't  
3 know who is the moving on here, so whoever's issue it  
4 is, speak first.

5 MR. BERLINER: I can start.

6 There are some exhibits that I was  
7 planning to show the witness from the prosecution  
8 history of the patent. We thought it would make sense  
9 to address these with you before we brought the jury  
10 back.

11 THE COURT: Were they included on the  
12 exhibit list examined and acted on during pretrial?

13 MR. BERLINER: Oh, yes. Yes, Your Honor.  
14 They're -- they're on the exhibit list.

15 THE COURT: Have they been preadmitted?

16 MR. PLIES: Yes, Your Honor. They've  
17 been preadmitted, but our issue with them is that they  
18 don't have Mr. Wechselberger as a sponsoring witness for  
19 them, because he doesn't opine upon the report in his  
20 report or cite to the document.

21 MR. BERLINER: Well, we disagree. He  
22 does describe the prosecution history. He describes  
23 what happened in it. He will not be offering any  
24 opinions as to the meaning of what happened, but these  
25 are factual matters that occurred in the prosecution of

1 the patents themselves. And our intent was just to get  
2 these factual matters on the record.

3 MR. PLIES: Your Honor, this is the  
4 information disclosure statement whereby the June 8th  
5 document was submitted to the prosecution -- to the  
6 Patent Office, along with comments about it.

7 And while the witness does have a  
8 recitation of prosecution history, this document is  
9 nowhere found in the recitation of the prosecution  
10 history. There's no discussion of it whatsoever in his  
11 report. And we don't think he can sponsor the document.  
12 He hasn't provided us his opinion about what he's going  
13 to say about it.

14 MR. BERLINER: As I mentioned, he's not  
15 going to be offering an opinion. He did cite to the  
16 prosecution history. I'll acknowledge that he didn't  
17 talk about this page of a 600-page prosecution history,  
18 and I'm just going to be identifying these pages for the  
19 record.

20 MR. PLIES: All the more reason, Your  
21 Honor, that we believe he should have discussed it in  
22 his report, because out of a 600-page prosecution  
23 history, we don't know what he's going to select and try  
24 to put an opinion about.

25 MR. BERLINER: We've identified the

1 specific pages. It's in the exhibit book, so I don't  
2 think there's any question of which pages I'm going to  
3 go to.

4 MR. PLIES: During his report, you should  
5 have, so I could depose him about it.

6 THE COURT: All right. Anything else?

7 MR. BERLINER: No, Your Honor.

8 THE COURT: Well, if it was taken up  
9 during pretrial and preadmitted, then it's freely usable  
10 before the jury and doesn't require the witness who uses  
11 it to sponsor it. It's just as if it were something  
12 that had been previously used by another witness, and  
13 it's shown to a later witness in the trial.

14 Now, this witness is called as an expert.  
15 His -- his purpose for being on the stand is to give  
16 expert testimony. So -- and it's not fair to examine  
17 him in his capacity as an expert about something that's  
18 outside of his report.

19 MR. BERLINER: Well --

20 THE COURT: So we've got a little bit of  
21 a bifur -- if you want to use the document, show it to  
22 him, and identify -- you know, you can use that as if  
23 you use any other admitted exhibit in the case, but he's  
24 not going to testify about what it means or its -- or  
25 his opinion or its effect or anything beyond you showing

1 it to him and him acknowledging what it is.

2 MR. BERLINER: That was all I had  
3 intended to do, Your Honor.

4 THE COURT: Well, you know, if there was  
5 a lack of a sponsoring witness or a requirement that a  
6 specific sponsoring witness is the only one properly to  
7 use an exhibit, that's an issue that should have been  
8 taken up and dealt with during the admission -- the  
9 preadmission process during pretrial.

10 That whole process is designed to  
11 streamline the trial and avoid arguments over exhibits  
12 during the course of the trial. So with the limitation  
13 that he's not to opine about it or explain it or do  
14 anything other than identify it, just as if another  
15 exhibit had been introduced, and you say, Mr. So-and-So,  
16 this has been admitted into evidence; I'd like you to  
17 look at it; can you tell me what it is, blah, blah,  
18 blah, that's proper. But to go beyond that is not.

19 MR. BLACK: Your Honor?

20 THE COURT: Do you have something,  
21 Mr. Black?

22 MR. BLACK: Yes, Your Honor. We  
23 completely agree that the document's been preadmitted.  
24 That's not the issue.

25 This is the document which would relate

1 to the issue that Your Honor said we're not going to  
2 have anybody opining in this case with respect to what  
3 the Patent Office knew or didn't know or what it did or  
4 didn't do with the prior art.

5           The witness -- we have no objection to  
6 the document being in evidence, even without this  
7 witness talking about it, but I don't believe that this  
8 document was discussed in his expert report. And,  
9 therefore, we don't have a rebuttal report on the  
10 document.

11           If he says anything about the document,  
12 other than this is a document in the case, characterizes  
13 it in any way, he's going outside his report. So we'll  
14 stipulate that it's in evidence, but there's no basis  
15 for this expert to discuss it, because it's not been  
16 mentioned in his report. That is going clearly beyond  
17 the report.

18           MR. DACUS: Your Honor, may I be heard  
19 briefly, because Counsel -- they may not have had the  
20 opportunity that I had at the bench yesterday.

21           Remember yesterday, when we said they  
22 were going outside the scope of Mr. Bratic's report, and  
23 that they did that, and the Court said the use of facts  
24 that are in evidence are appropriate as long as you're  
25 not giving opinions.

1                   And this is exactly the same. All -- all  
2 Mr. Berliner plans to do is show him the document,  
3 identify the document, what the words say; no opinion  
4 related to the -- to the document or to the effect  
5 television.

6                   THE COURT: Well, you know, what you're  
7 both saying parrots to a certain extent what I'm saying,  
8 but where we may be missing the boat is to the actual  
9 degree of particularity of application. So if you can,  
10 Mr. Dacus, tell me what this witness is going to say.  
11 Or, Mr. Berliner, tell me what you intend to propound to  
12 the witness with this document in hand.

13                  MR. BERLINER: Sure. I'll tell you  
14 exactly what we're going to do with the witness.

15                  I'm going to identify certain pages from  
16 the prosecution history. I'll just ask him to identify  
17 what is this page. And then there are portions that  
18 I'll ask him to read, or I will read and that will be  
19 that.

20                  He will not provide any comment on what  
21 they mean or -- or opinion as to how it relates to his  
22 other analysis.

23                  MR. BLACK: The pages on IDS, he's not an  
24 expert in prosecution history. He hasn't opined on it  
25 or even mentioned it in his report.



1 MR. BERLINER: He can read English,  
2 though.

3 MR. BLACK: They can make argument in  
4 closing. It's fair -- if it's in evidence, we don't  
5 have any objection of it's in evidence, but they can't  
6 use this expert to talk about a document that's  
7 obviously important to them in the case, which he never  
8 mentioned in his expert report.

9 We don't have a counter-report on it, and  
10 we don't have an expert on prosecution history, and  
11 they're trying to create confusion with the jury on this  
12 issue. But the principal objection, Your Honor, is that  
13 it's outside the scope of his report for him to even say  
14 that this is an IDS that Hitachi submitted and anything  
15 about it. It's outside the scope of his report and  
16 prejudicial.

17 MR. BERLINER: Prosecution history is an  
18 exhibit to his report. It's identified in his report.

19 MR. BLACK: The fact that there is --  
20 there is discussion about the prosecution history, but  
21 he left out a discussion of this particular document, I  
22 believe, for tactical reasons.

23 MR. BERLINER: It's part of the factual  
24 records of what happened at the Patent Office.

25 THE COURT: All right. Gentlemen, if you

1 argue among yourselves, we can do that another time.

2 I've heard enough.

3                   It's preadmitted, and I'm going to allow  
4 you to show it to the witness just as if I would allow  
5 you to use it in closing arguments in front of the jury,  
6 if you want to. But anything that smacks of an opinion  
7 or a characterization or an interpretation or a meaning  
8 is going to be unacceptable and beyond the bounds of its  
9 use at this time.

10                   Do you understand, Mr. Berliner?

11                   MR. BERLINER: Yes, sir. Yes, Your  
12 Honor.

13                   THE COURT: All right. Then we'll handle  
14 it in on that basis.

15                   Anything further?

16                   MR. BERLINER: No, Your Honor.

17                   THE COURT: Bring in the jury, please.

18                   COURT SECURITY OFFICER: All rise for the  
19 jury.

20                   (Jury in.)

21                   THE COURT: Welcome back from lunch,  
22 Ladies and Gentlemen. Please be seated.

23                   All right. We'll continue with the  
24 direct examination of this witness.

25                   You may continue, Mr. Berliner.

1 MR. BERLINER: Thank you, Your Honor.

2 ANTHONY WECHSELBERGER, DEFENDANTS' WITNESS,

3 PREVIOUSLY SWORN

4 DIRECT EXAMINATION (CONTINUED)

5 BY MR. BERLINER:

6 Q. I think when we broke for lunch, I was about  
7 to ask you whether the TPV televisions satisfy the error  
8 corrector limitation of Claim 25.

9 A. No. The accused televisions do not satisfy  
10 this claim element.

11 Q. And we've discussed the error coding  
12 differences between Claim 6 of the '310 patent and  
13 Claim 25 of the '375 patent. Do the TPV televisions  
14 satisfy the first expander and the second expander  
15 limitations of Claim 25?

16 A. No, they don't, for the same reasons that I  
17 explained with respect to the '310 patent.

18 Q. And do we need to consider the additional  
19 limitations of Claim 26?

20 A. No, we don't. Since Claim 26 is a dependent  
21 claim, the -- all the requirements of Claim 25 are, by  
22 definition, included in the requirements of Claim 26.

23 Q. So do you have an opinion as to the  
24 infringement of Claim 26 of the '375 patent?

25 A. Yes. My opinion is that Claim 26 is not

1 infringed by the TPV televisions.

2 MR. BERLINER: Your Honor, may I approach  
3 the board.

4 THE COURT: You may.

5 Q. (By Mr. Berliner) So if I understand your  
6 testimony, I can cross out the error corrector  
7 limitation?

8 A. Yes.

9 Q. And I can cross out the first expander  
10 limitation?

11 A. Yes.

12 Q. And I can cross out the second expander  
13 limitation?

14 A. Yes.

15 Q. And I can cross out the entirety of Claim 26?

16 A. Yes.

17 Q. Thank you.

18 So now let's turn to the last claim of the  
19 '375 patent, which is -- which is Claim 30. And let me  
20 first start by showing you a side-by-side comparison of  
21 Claims 29 and 30 on the right-hand side with the two  
22 claims we just spoke about a moment ago, 25 and 26, on  
23 the left-hand side.

24 And, Mr. Wechselberger, how do these two sets  
25 of claims compare?

1           A.     These two claims compare -- they're almost  
2 identical. There are some mild to moderate language,  
3 wording differences between the two claims, an example  
4 of which I've provided.

5                     For example, on the left, it describes correct  
6 an error of the digital information demodulated, and on  
7 the right, similar language, correct an error of a  
8 digital information which has previously been  
9 demodulated.

10                    So these kinds of small differences exist  
11 between the two patents, and as I stated, Claim 29, with  
12 respect to these, it's my conclusion that Claim 29, from  
13 a practical standpoint, has all the same requirements as  
14 Claim 25.

15           Q.     So do the TPV television satisfy the error  
16 corrector, first expander, and second expander  
17 limitations of Claim 29?

18           A.     In my opinion, they do not.

19           Q.     And do we need to consider the additional  
20 limitations of Claim 30?

21           A.     No, we don't, since Claim 30 is a dependent  
22 claim, and in particular, if the three items of Claim 29  
23 are not satisfied, then Claim 30 requirements are not  
24 satisfied.

25           Q.     And do you have an opinion with respect to

1 Claim 30 of the '375 patent?

2 A. Yes. For the above reasons, Claim 30, in my  
3 opinion, is not infringed.

4 MR. BERLINER: And may I again approach  
5 the board?

6 THE COURT: You may.

7 MR. BERLINER: I forgot to change my  
8 board, but I will do that now.

9 Q. (By Mr. Berliner) This board includes  
10 Claims 29 and 30, put it up briefly. And if I  
11 understand your testimony, I can cross out the error  
12 corrector limitation, correct?

13 A. Yes.

14 Q. The first expander?

15 A. Yes.

16 Q. And the second expander?

17 A. Yes.

18 Q. And the entirety of Claim 30?

19 A. Yes.

20 Q. Thank you.

21 Now, you testified earlier that you had also  
22 analyzed the validity of Claim -- the -- the validity of  
23 the asserted claims of the '310 and '375 patents; is  
24 that correct?

25 A. Yes.

1 Q. And what specifically did you do to analyze  
2 validity of those patents?

3 A. I did a survey of prior art that existed  
4 throughout the digital television landscape looking for  
5 art that could be compared against the asserted claims  
6 and then making a comparison against the asserted  
7 claims.

8 Q. So I'd like to read for you another excerpt  
9 from the deposition testimony of Mr. Owashi.

10 MR. BERLINER: And if you would please --  
11 please show 136, 1 through 5.

12 Q. (By Mr. Berliner) QUESTION: So you were not  
13 aware of any systems that include separate video and  
14 audio expansion in a recording and transmission system?

15 ANSWER: My view is that there were no  
16 systems that correspond to this invention.

17 Now, Mr. Wechselberger, in your study of the  
18 prior art, did you come across any -- any documents that  
19 included separate video and audio expansion in a  
20 television broadcasting system?

21 A. Yes, I did, and one document in particular  
22 stands out in my mind.

23 Q. And -- and what document is that?

24 A. It is the DigiCipher proposal document.

25 Q. And you're referring to DX 599; is that

1 correct?

2 A. That's correct.

3 Q. And what was the DigiCipher proposal that you  
4 mentioned?

5 A. There's a summary -- this is a 34-page  
6 document, and there's a summary on the -- as it  
7 begins -- I'll just read the opening sentence.

8 General Instrument's DigiCipher System is an  
9 all-digital HDTV system that can be transmitted over a  
10 single 6-megahertz VHF or UHF channel.

11 So this document discloses a full end-to-end  
12 digital television transmission system capable of  
13 broadcasting high-definition pictures.

14 Q. Does the DigiCipher document have a systems  
15 diagram?

16 A. It does. I believe it's labeled 2.1.

17 THE COURT: Mr. Berliner, I need you to  
18 approach the bench.

19 Counsel, approach the bench.

20 (Bench conference.)

21 THE COURT: This witness, who was in the  
22 chair and just heard everything before I brought the  
23 jury back, just proceeded to tell this jury exactly what  
24 it meant. He didn't read it -- he read it, and then he  
25 said, this means it does this and this and this.



1 MR. BERLINER: Your Honor, this is not  
2 the document we were discussing. The document we were  
3 discussing was the prosecution history, which is -- I  
4 have not shown yet. That's -- that will -- that's  
5 later. This is the DigiCipher document itself, what  
6 they were talking about.

7 THE COURT: Okay. I may be -- I may be  
8 mistaken.

9 MR. BLACK: Well, because he read the  
10 first sentence discussing the DigiCipher system, and  
11 there's no evidence that there was an actual working  
12 system. That's a different issue.

13 THE COURT: Gentlemen, lower your voices.

14 MR. BLACK: It is not what we were  
15 talking about before. We were arguing about before the  
16 other IDS that Hitachi sent to the Patent Office.

17 THE COURT: All right. I may be  
18 mistaken. I thought he was taking advantage of  
19 something.

20 MR. BERLINER: No, Your Honor. We should  
21 have classified it. I just wanted to pre-raise that  
22 issue that would come up later.

23 THE COURT: I've given you a narrow  
24 pathway. I expect you to stay on the narrow pathway.

25 MR. BERLINER: Yes, Your Honor.

1 (Bench conference concluded.)

2 THE COURT: All right. Let's proceed  
3 with that clarification.

4 Q. (By Mr. Berliner) Mr. Wechselberger, can you  
5 tell me what Figure 2-1 of the DigiCipher document  
6 shows?

7 A. As it's labeled, this is a system block  
8 diagram. On the left is the UHF or VHF transmission  
9 location, signal goes over the air to a receiver  
10 location television set.

11 Q. And can you describe the transmitter side of  
12 DigiCipher?

13 A. Yes. There is a figure that provides some  
14 additional detail about the transmitter. Figure 2.2, we  
15 see here the DigiCipher video encoder. That's the  
16 compression for video, along with the compressor for  
17 audio.

18 The data streams are set to error. FEC stands  
19 for forward error correction, so there's the error code  
20 followed by a demodulator.

21 Q. And can you describe the receiver side of  
22 DigiCipher?

23 A. Certainly. Figure 2.3 shows the receiver  
24 signals come in from the left through the demodulator  
25 through the error correction coder/decoder and to the

1 bit-expanders, which are shown as the digital video  
2 decoder and digital audio decoder.

3 Q. Now, how does DigiCipher compare to the '310  
4 and '375 patents?

5 A. They're almost identical, and in terms of  
6 critical functions, in my opinion, they are. On the top  
7 is Figure 4, which is the receiver portion from the  
8 patent and on -- right below that, I've put the receiver  
9 of the DigiCipher document.

10 And if we see the signal path flow, it shows  
11 up -- there it is in red, just to help orient people --  
12 for the patent, the receiver information comes in,  
13 follows the path, circles back around to the  
14 bit-expanders and comes out the left.

15 And the DigiCipher document, the path comes  
16 through this way to the bit-expanders. And I arranged  
17 to show a one-to-one correspondence between the key  
18 features of both of these.

19 If we can progress through that, I'll show the  
20 demodulator highlighting in yellow for both products,  
21 followed by the error corrector in both products,  
22 followed in turn by the video-expander and the  
23 audio-expander for both.

24 Q. And just to clarify, the top image is taken  
25 from the '310 patent, and the bottom one is from the

1 DigiCipher document; is that correct?

2 A. That's correct.

3 Q. So, now, let's -- let's return then to Claims  
4 6 and 7 of the '310 patent. And I've -- I've shown the  
5 claim on the left-hand side and the DigiCipher document  
6 on the right.

7 Do you have an opinion as to whether  
8 DigiCipher discloses all elements of Claims 6 and 7?

9 A. It is -- yes, it is my opinion that DigiCipher  
10 does disclose all the elements of Claim 6 and Claim 7.

11 Q. So let's go through the claim elements one by  
12 one.

13 Does DigiCipher disclose an apparatus for  
14 processing a transmitted digital signal, including at  
15 least one of a video signal and an audio signal?

16 A. Yes, it does. There are elements of both the  
17 transmitter and the receiver in this first claim  
18 element. So we will look at the system block diagram.

19 There is the apparatus for processing --  
20 that's a receiver -- a digital signal, including at  
21 least one of a video signal and audio signal.

22 Those come from the transmitter location, of  
23 course, as I just described in the details of the  
24 encoder block diagram where I showed everyone the video  
25 compressor and the audio compressor at the transmitter

1 location.

2 Q. And does DigiCipher disclose -- oh, let me  
3 check off that first element.

4 Now, let me proceed. Does DigiCipher disclose  
5 a receiver which receives the transmitted digital  
6 signal?

7 A. It does show the same diagram again. On the  
8 right is the receiver.

9 Q. And let me proceed then. Does DigiCipher  
10 disclose the limitations wherein the transmitted digital  
11 signal includes video signal bit-compressed by first  
12 compression method, an audio signal bit-compressed by a  
13 second compression method, and an error correction  
14 signal added commonly to both the video signal and the  
15 audio signal?

16 A. Yes, it does.

17 And we can show that, again, from the  
18 transmitter encoder block diagram location, the  
19 compressors, audio/video, and parity adder.

20 Q. And does DigiCipher disclose the use of error  
21 correction information that is commonly added to the  
22 video and audio?

23 A. Yes, it does. Thank you.

24 Comparing the added commonly characteristics  
25 of the patent, we looked at these blocks before.

1 THE WITNESS: Thank you for blowing those  
2 up?

3 A. The audio and video compressors. There's the  
4 parity adder in the patent. The counterpart to that,  
5 which matches these requirements in the DigiCipher  
6 document, is the -- I'm sorry -- at the -- taken from  
7 the encoder of the video compressor, and the streams get  
8 put together by the multiplexer, and there's the error  
9 corrector in the DigiCipher document.

10 Q. (By Mr. Berliner) So how does the patent  
11 disclose or describe the error correction signal added  
12 commonly to both the video signal and the audio signal?

13 A. That is the part of the diagram that's shown  
14 blown up here. Again, the parity adder is the signal  
15 processing circuit that the patent used -- uses to show  
16 parity added commonly.

17 Q. Okay. So I can check off that element and  
18 move on to the next element, which reads: A demodulator  
19 which demodulates the digital signal received by the --  
20 the receiver.

21 Does DigiCipher disclose -- disclose that?

22 A. Yes. And we could look at the receiver block  
23 diagram, please. There's the demodulator in the  
24 DigiCipher document.

25 Q. Okay. I'm going to check off that block.

1           And does DigiCipher disclose an error  
2 corrector which corrects an error of the digital signal  
3 demodulated by the demodulator based on the error  
4 correction signal?

5           A.    Yes.  Once again, let's look at the receiver.  
6 There is the error corrector in DigiCipher.

7           Q.    The -- the block labeled FEC?

8           A.    That's correct.  Forward error correction  
9 decoder, check that one off.

10          Q.    The next element reads:  A first expander  
11 which bit-expands the video signal of the digital signal  
12 corrected by the error corrector in accordance with the  
13 first compression method.

14               Is that shown in DigiCipher?

15          A.    Yes, it is.

16               The receiver, again, please.

17               There is -- the box labeled digital video  
18 decoder is the bit-expander, the one shown in the patent  
19 for video.

20          Q.    Check that box.  And then we move on to the  
21 next element, a second expander, which bit-expands the  
22 audio signal of the digital signal corrected by the  
23 error corrector in accordance with the second  
24 compression method.

25               Is that disclosed by DigiCipher?

1           A.     Yes, it is. And there is the box labeled  
2 digital audio decoder, the second bit-expander.

3           Q.     So we can check off that element as well.  
4 Moving on to Claim 7, does DigiCipher disclose the  
5 apparatus according to Claim 6 wherein the first  
6 compression method utilizes a discrete cosine transform?

7           A.     Yes, it does. And I've highlighted a section  
8 from the document. From the digital video processing  
9 section, we find that the compression technique is  
10 discrete cosine transform.

11          Q.     So in your opinion, does DigiCipher disclose  
12 all limitations of Claim 7 of the '310 patent?

13          A.     Yes, it does.

14          Q.     And what is your opinion as to the validity of  
15 Claim 7 of the '310 patent?

16          A.     It's my opinion that Claim 7, which depends  
17 from Claim 6, all the requirements for Claim 7 and  
18 Claim 6 are satisfied. And, therefore, Dig -- Claim 7  
19 is invalid in -- and that is fully anticipated by  
20 DigiCipher.

21          Q.     So now let's move on, then, to Claims 25  
22 and 26, and you've testified already that Claim 25 of  
23 the '375 patent is practically identical to Claim 7 of  
24 the '310, except for that difference in the language  
25 between the separately added and commonly added; is that



1 correct?

2 A. That's correct.

3 Q. And Claims 7 -- I'm sorry -- Claim 25 has the  
4 separately added language that we talked about earlier?

5 A. That's correct.

6 Q. Is this limitation shown by DigiCipher?

7 A. By itself, not completely shown. But the  
8 concept of adding parity information commonly or  
9 separately to a signal that's to be transmitted is  
10 commonly known by those of ordinary skill in the art.

11 If you have a data stream or the information  
12 bits have been combined, it may make sense in an  
13 implementation technique to add it commonly.

14 On the other hand, if the particular data  
15 stream has audio and video compartmentalized in some  
16 fashion, it may make perfectly good sense to add parity  
17 separately. And so it would be implementation-specific,  
18 but it was certainly known to one of ordinary skill in  
19 the art.

20 Q. Are you aware of any prior art references that  
21 supply the additional knowledge of separately adding  
22 error correction information to video and audio streams?

23 A. Yes, I can provide a reference for that.

24 Q. And what is that?

25 A. This is a United States patent issued to a

1 person -- an inventor. His name is Shikakura. This  
2 patent ending in '503 has a filing date of March 7th,  
3 1989, which predates the filing date of the Hitachi  
4 patents. So this is indeed prior art to the Hitachi  
5 patent.

6 Q. And can you explain what Shikakura discloses?

7 A. Sure. It is an information transmission and  
8 receiving device for -- for audio and video information,  
9 and there's a figure in this patent, which is  
10 appropriate for the discussion of separately adding,  
11 Figure 2.

12 We see in the box labeled V. That's video  
13 information. It has its parity appended. And there are  
14 two examples of audio information where apparently  
15 parity is added. And so this figure shows separate  
16 parity addition for video and -- and -- and audio.

17 Q. And let me note for the record that Shikakura  
18 is Defendants' Exhibit 615.

19 In your opinion, Mr. Wechselberger, would a  
20 person of ordinary skill in the art be motivated to  
21 combine DigiCipher with Shikakura?

22 A. Sure. If we can take a look, for example, at  
23 the title of Shikakura. It says Digital Information  
24 Transmitting and Receiving System.

25 I've indicated that I've looked at this

1 patent, and that information is digital audio and video  
2 information. It's certainly the focus of DigiCipher,  
3 digital audio and video information.

4           The abstract of Shikakura, which is on the  
5 title page of a patent and shows a little summary of  
6 what you're about to learn, when you read the patent,  
7 discloses a first error correcting circuit and a second  
8 error correcting circuit. And in the body of the  
9 patent, we find that those are put to work in Figure 2  
10 by adding parity separately to video and separately to  
11 audio.

12           So one of ordinary skill in the art would  
13 certainly be motivated to combine these. Excuse me.  
14 They're both oriented toward similar types of processing  
15 functions, transmission systems using similar types of  
16 digital information.

17           Q.    So in your opinion, does the combination of  
18 DigiCipher and Shikakura disclose all limitations of  
19 Claim 25?

20           A.    Yes, the combination does.

21           Q.    And moving on to Claim 26, does DigiCipher  
22 disclose the first compression method of utilizing  
23 discrete cosine transform?

24           A.    It certainly does as I just showed and will  
25 show again, the video processing with DigiCipher is

1 discrete cosine transform compression.

2 Q. So in your opinion, does the combination of  
3 DigiCipher and Shikakura disclose all limitations of  
4 Claim 26?

5 A. Yes, the combination does.

6 Q. So I'll check those off -- that claim off.  
7 And what is your opinion as -- as to the validity of  
8 Claim 26?

9 A. It is my opinion that the combination of  
10 DigiCipher and Shikakura renders Claim 26 invalid by  
11 virtue of being obvious in light of these two prior art  
12 references.

13 Q. So now let's move on then to Claims 29 and 30.  
14 And with respect to these claims, you've already  
15 testified that they have the same requirements as  
16 Claims 25 and 26; is that correct?

17 A. That is correct.

18 Q. And what is your opinion as to the validity of  
19 Claim 30?

20 A. For all the reasons I just expressed, for the  
21 prior claim that we went through, since, in my opinion,  
22 the requirements of Claim 30 are the same, then all  
23 these -- all these requirements are also met by the  
24 combination of the two references.

25 Q. And do you have an opinion as to the validity

1 of Claim 30?

2 A. Yes. For the reasons I've just expressed, I  
3 consider Claim 30 to be invalid by virtue of being  
4 obvious in light of the combination of Shikakura and  
5 DigiCipher.

6 MR. BERLINER: Your Honor, may we  
7 approach?

8 THE COURT: You may.

9 (Bench conference.)

10 MR. BERLINER: I just wanted to alert you  
11 that now I was going to use the document we talked  
12 about.

13 THE COURT: Okay.

14 (Bench conference concluded.)

15 THE COURT: Proceed.

16 Q. (By Mr. Berliner) So let me now change  
17 subjects, and -- and I'd like to show you the front  
18 cover of the '310 patent.

19 MR. BERLINER: Can you show DX 761 for  
20 me, please?

21 Q. (By Mr. Berliner) And, Mr. Wechselberger, can  
22 you identify this?

23 A. This is the '310 Hitachi patent that I'd  
24 previously been testifying about.

25 MR. BERLINER: And would you please go

1 down to highlight this section identified as other  
2 publications?

3 Q. (By Mr. Berliner) Is the digital document you  
4 just testified about identified on the front cover of  
5 the '310 patent?

6 A. No, it is not.

7 Q. Now, let me show you the front cover of the  
8 '375 patent.

9 MR. BERLINER: And if you would please  
10 bring up DX 762.

11 Q. (By Mr. Berliner) And can you identify this  
12 document?

13 A. Yes. This is the Hitachi patent that we've  
14 been calling '375.

15 MR. BERLINER: And can you bring up the  
16 other publications section?

17 Actually, you'll need to go to the second  
18 page, which has a continuation of the other publications  
19 section.

20 Q. (By Mr. Berliner) And, Mr. Wechselberger, is  
21 the DigiCipher document listed on the cover of the '375  
22 patent?

23 A. Yes, it is. It's being highlighted currently  
24 and shown in yellow on the overhead projector.

25 Q. Now, you testified earlier that you had

1 reviewed the prosecution histories of these two Hitachi  
2 patents; is that right?

3 MR. BERLINER: You can take this down.

4 A. That's correct.

5 Q. (By Mr. Berliner) And what is a prosecution  
6 history?

7 A. A prosecution history is the record of  
8 information -- I'm not a lawyer, so I'll describe it the  
9 way I use it.

10 It's a record of the -- of the -- all of the  
11 stuff that happened during the time that the patent was  
12 being applied for. So the -- the applicant provides an  
13 application. The U.S. Patent and Trademark Office  
14 accepts that, and there's a process which -- which  
15 assumes at that point -- and there could be information  
16 and exchanges back and forth.

17 So the prosecution history is a record of all  
18 that, so you can go back and study what happened.

19 Q. So let me show you a document from the  
20 prosecution history of the '375.

21 MR. BERLINER: If you would, please,  
22 bring up DX 15 at Bates 7449.

23 Q. (By Mr. Berliner) And there's a document on  
24 the screen. Can you just tell me -- can you identify  
25 what the document is?

1           A.     The document says Information Disclosure  
2 Statement.

3           Q.     And is this a document that was submitted by  
4 Hitachi?

5           A.     Yes. I can see the inventor's name at the top  
6 of the document.

7           Q.     Okay.

8                         MR. BERLINER: If you would, please  
9 enlarge the paragraph at the bottom that continues onto  
10 the next page and starting with the word with.

11          Q.     (By Mr. Berliner) The document reads: With  
12 regard to Document A, entitled DigiCipher HDTV System,  
13 and Document B, which is an IEEE publication entitled  
14 DigiCipher, All Digital Channel-Compatible HD Broadcast  
15 System.

16                         Applicants note that the contents of such  
17 documents are substantially similar. However, with  
18 respect to Document A, while bearing a date of June 8,  
19 1990, applicants are not presently aware of evidence  
20 establishing that Document A was publicly accessible  
21 before its disclosure in the corresponding IEEE  
22 publication of December 1990; and, therefore, do not  
23 believe that Document A qualifies as prior art such that  
24 the date of June 8, 1990 is not listed in the attached  
25 form.



1 Did I read that correctly?

2 A. Yes.

3 MR. BERLINER: Can you now go on to Bates  
4 7453?

5 Q. (By Mr. Berliner) And is Document A shown on  
6 this page?

7 A. Yes. It's the first item next to the letter  
8 A, capital letter A.

9 Q. And does the title of the document match the  
10 reference that we've marked as DX 599?

11 A. Yes.

12 Q. And let me show you another document from the  
13 prosecution of the '375 patent.

14 MR. BERLINER: If you would, please go to  
15 Bates 7579, and if you would, please enlarge the -- the  
16 central part of the document there.

17 Q. (By Mr. Berliner) Do you see the same entry,  
18 No. A -- or letter A?

19 A. Yes.

20 Q. And does it appear to be crossed out?

21 A. Yes. The first four items, including A,  
22 have -- have a cross over them.

23 MR. BERLINER: And can you turn to the  
24 next page in this document and enlarge the portion right  
25 at the top there?

1 Q. (By Mr. Berliner) There's a sentence in caps  
2 that says: All references considered, except where  
3 lined through, and there's initials T-D.

4 Do you see that?

5 A. Yes.

6 Q. Do you -- and do you know what the -- the  
7 initials T-D mean?

8 A. I can see at the bottom of the diagram -- oh,  
9 wait a minute.

10 Q. Strike that. Why don't I withdraw that  
11 question.

12 A. Okay.

13 Q. I'll withdraw that question.

14 MR. BERLINER: Could you identify the  
15 field that says Examiner name?

16 A. Yes. It's being highlighted in yellow, and --  
17 it's being highlighted in yellow. That is the name of  
18 the PTO Examiner.

19 Q. (By Mr. Berliner) Mr. Wechselberger, please --

20 A. Okay.

21 Q. -- wait for me to ask a question.

22 A. Sorry.

23 Q. Okay. So the Examiner name is identified  
24 there as T. Dihn.

25 MR. BERLINER: Okay. You can take this

1 down.

2 Q. (By Mr. Berliner) And I'm going on to be  
3 moving on now to a different subject.

4 And if you would, please -- now I want to turn  
5 to the fourth patent that you had considered, and this  
6 is the '497 patent, which is Exhibit DX 776 in your  
7 book.

8 And if you would, please, can you describe  
9 generally what the '497 patent is about?

10 A. Yes. It's about a configurable television  
11 which is capable of receiving digital television  
12 transmissions and a control channel, which is used to  
13 control how the receiver processes the digital  
14 television signals.

15 Q. And -- and are you familiar with the term  
16 broadcast program picture information from the '497  
17 patent?

18 A. Yes. I think if you put up the next  
19 picture -- thank you -- that's a citation from the  
20 abstract. The abstract tells us that transmitting  
21 equipment transmits the broadcast program picture and  
22 control information.

23 In this patent, the -- the word broadcast  
24 program picture is used throughout, and it simply means  
25 a television program like American Idol or any other

1 television program.

2 Q. And can you briefly explain how control  
3 information is used by the television in the '497  
4 patent?

5 A. There's a document -- figure in the document  
6 which helps to describe that. On the left, it's a  
7 broadcast location transmitter; on the right is the  
8 receiver. This is a TV set under this patent.

9 Information comes in through this path here at  
10 the left. The reception module is like a tuner and  
11 demodulator. It receives the broadcast television  
12 picture.

13 The next signal processor is -- is --  
14 separates the signals so that the proper audio and video  
15 information can go to the decoder, which is the  
16 decompressor.

17 And the last processing element is the display  
18 unit. It's a TV picture, producer, flat screen.

19 There's another component called the reception  
20 control 114. This is the device that receives the  
21 control information and then in turn returns control  
22 information to the reception module and/or the signal  
23 separator and/or the decoder. And this control  
24 information then controls how these boxes operate.

25 Q. And what does the information in the broadcast

1 signal look like?

2 A. Figure 2 shows us that. There's an example  
3 here of three different broadcast channels, Channel 1,  
4 Channel 2, Channel 3. This is like Channel 8, Channel 9  
5 Channel 10.

6 And as we learned about digital television  
7 programs, there's digital television transmissions.  
8 There can be multiple programs on each channel. And  
9 that's shown in the color coding here.

10 Q. And what kind of information is contained in  
11 the control information?

12 A. Let me identify the control channel. It's  
13 shown on the bottom, and importantly, there is control  
14 channel information for each of the broadcast channels.  
15 So this control information would go to that channel.

16 Q. And -- and what -- what type of information  
17 is -- is contained in the control information?

18 A. Figure 3 of the patent shows us control  
19 information, and for every program identified by the ID  
20 here, there is then a -- that could be highlighted --  
21 there is a set of control information from this table,  
22 as an example, that would be associated with that  
23 program.

24 There's three kinds of control information  
25 disclosed in the patent. There's picture information.

1 This is control information that would affect how the  
2 picture is processed.

3           There's communications information, which is a  
4 different kind of control information, which controls  
5 how the program is broadcast.

6           And then there's a third type of control  
7 information, which we can ignore because it doesn't come  
8 into play in the discussions we're having.

9           Q.    So now let's turn to the asserted claims of  
10 the '497 patent.

11           And, first of all, were you in the courtroom  
12 when Mr. Goldberg testified for Hitachi about this  
13 patent?

14           A.    Yes.

15           Q.    And did you hear Mr. Goldberg say that Claims  
16 15 and 16 of the '497 patent, which depend from Claim  
17 13, are the ones asserted to be infringed?

18           A.    Yes.

19           Q.    And do you have an opinion as to whether  
20 Claims 15 and 16 are infringed?

21           A.    I have an opinion. Based on my investigation  
22 and analysis, it's my opinion that neither Claims 15 or  
23 16 are infringed.

24           Q.    And were there any constructions of the terms  
25 of these claims by the Court that you considered?

1           A.     Yes.   There is one very important construction  
2   which the Court has provided.

3                   In Claim 13, which is the independent claim,  
4   you'll find the phrase broadcast system standard  
5   appearing -- repeated up here.

6                   And the Court has provided a definition that  
7   we can follow to help us understand what Claim 13 means,  
8   and that definition is: A specified set of technical  
9   parameters describing how a program is broadcast.

10          Q.     And did you apply the Court's construction in  
11   performing your analysis of the '497 patent?

12          A.     Yes, I did.

13          Q.     And -- and how did you apply the construction?

14          A.     The next slide, I'll walk you through that.  
15   The key phrase is how a program is broadcast. And  
16   stepping back and thinking about what does it mean to  
17   broadcast, what is broadcasting, broadcasting is the  
18   launching of a signal through the air from a transmitter  
19   to a receiver. So that is a broadcast.

20                   Of course, in real life, there's hundreds of  
21   receivers, and so I repeated the phrase down there how  
22   to broadcast, and that is the focus that I used in -- in  
23   applying the Court's definition to the claim.

24          Q.     And are there other kinds of technical  
25   parameters that control different things within the

1 patent than how the program is broadcast?

2 A. Certainly. In the -- in the Figure 3 we just  
3 looked, I pointed out two different kinds of control  
4 information.

5 One I called picture information. This  
6 controls how a picture is processed. That's not how a  
7 program is broadcast. There is a separate kind of  
8 information that the patent calls communication  
9 information. Communication controls how a program is  
10 broadcast.

11 So there's basically two buckets in this  
12 patent of control information, and only one of those is  
13 the subject of the Court's construction.

14 Q. And could you perhaps give us an example to  
15 show how you understand the construction to apply in  
16 this case?

17 A. Sure. And the example I'll use, I'll use a  
18 model. And let's -- let's -- let's just say that I've  
19 got a box to send to somebody, and in this box, I'm  
20 going to put something that needs to be assembled like a  
21 bicycle.

22 Q. Mr. Wechselberger, can you speak into the  
23 microphone?

24 A. I'll speak to the mic.

25 And in this box, there's something to be



1 assembled, like a bicycle. So I'll prepare the parts of  
2 the bike, put them in the box, and I'm going to throw in  
3 some control -- some assembly instructions into the box,  
4 and I'll close the box.

5           Now I have a decision to make. In sending  
6 this box to a recipient in the house up there, I have  
7 choices to make. I could choose Postal Service, FedEx,  
8 UPS. Each choice of delivery method I use is a  
9 different way of sending that box to the recipient.

10           Now, in this model, the box represents a  
11 television program. Inside the box are pieces of a  
12 bike, but in the model, those are the pieces of a  
13 program with the assembly instructions in there. When  
14 the recipient gets the instructions, he knows how to put  
15 the bike together.

16           There are similar assembly instructions for  
17 the program you get back that I'll show you that has  
18 picture information that tells you how to put the  
19 picture together.

20           So the box is the television program with the  
21 pieces of it. The delivery trucks represent how the box  
22 is sent to the recipient, how the program is broadcast.  
23 So in picking one of these delivery options, if we  
24 rolled the truck, U.S. mail or FedEx, each one of these  
25 represents a different carrier or a different way for

1 how the box gets to the receiver.

2           Making this a little bit more interesting,  
3 there might be a time of arrival, 10:00 o'clock for  
4 mail, 1:00 o'clock for FedEx, 4:00 o'clock for UPS.

5           Now, time represents an example of a parameter  
6 for how the box got to the consumer. So I've got  
7 different parameters associated with different carriers.  
8 This is analogous to how a program is broadcast.

9           Now, if I'm the person at the house, and I'm  
10 going to have to sign for this box, I need to know --  
11 especially if I'm working, I need to know when to come  
12 home and be there to sign for that box. So that's  
13 information I have to understand in order to know how to  
14 receive the box.

15           Q.    Now, Mr. Wechselberger, let me interrupt you.  
16 So how does this example, then, relate to the  
17 televisions that are sold in the United States?

18           A.    All right. We can move along to the next  
19 picture then.

20           Oh, all right. The next picture shows the  
21 situation in the United States. The previous slide had  
22 a picture of the patent on it. So that was what I was  
23 talking about with the box and the delivery options, was  
24 what the patent describes.

25           In the United States, under the ATSC system --

1 you can roll the truck -- you don't get choices. You  
2 have one choice for how this program is broadcast.  
3 That's like having only one choice for how the package  
4 is delivered.

5 All broadcasters in the U.S. broadcast how the  
6 program is broadcast using the ATSC standard. It's  
7 mandated by the FCC. There are no choices.

8 Q. So, Mr. Wechselberger, does that mean that the  
9 televisions don't need any control information on how  
10 the program is broadcast?

11 A. That's exactly right. TVs are manufactured  
12 with a target market in -- in mind, that is, the ATSC  
13 market, and they know how that program is going to be  
14 broadcast. They don't need to be told anything else.

15 Q. So could you now relate this back to the  
16 figures of the '497 patent?

17 A. Sure.

18 If we look back at a couple of those figures  
19 together, Figure 3 on the bottom was the figure that  
20 gave us the two kinds of control information. The pink  
21 information, communication systems information, is how  
22 the program is broadcast, and I've shown that being  
23 introduced to the reception module in the actual figure  
24 of the television. Because it receives the broadcast  
25 signal, it needs to know how that signal is broadcast.

1           By contrast, the blue information is picture  
2 information, and that is instructions for how to process  
3 the picture information. And this would be analogous to  
4 the assembly instructions that I put in the bicycle  
5 package.

6           So these all work together in the patent to  
7 provide the full complement of kinds of control  
8 information that that controller there delivers to the  
9 components of the receiver.

10          Q.    So did you hear Mr. Goldberg identify control  
11 information when he testified earlier this week?

12          A.    I did.

13          Q.    And let me -- let me show you two ATSC  
14 documents. Actually, strike that.

15                Maybe you can identify these two documents for  
16 me.

17          A.    Yes. The one on the left is highlighted A65,  
18 and it's called program and system information protocol.  
19 We call that PSIP. That's one of the documents that  
20 provides a lot of the -- the information in the tables  
21 that Mr. Goldberg was referring to.

22                The other document is ISO/IEC 13818-1. This  
23 is the MPEG 2 system standard for transport multiplexing  
24 that I described earlier.

25                So these two documents both provide certain

1 kinds of information that's transmitted with a digital  
2 television signal.

3 Q. And were these documents that you had  
4 reviewed?

5 A. Yes. I -- I reviewed them extensively.

6 Q. Thank you.

7 And do these documents show the fields that  
8 Mr. Goldberg identified?

9 A. They do.

10 Q. And are these the fields that Mr. Goldberg had  
11 identified?

12 A. Yes, they are.

13 Q. And do you agree with Mr. Goldberg's opinion  
14 that the control information, the six items of control  
15 information here, are a specified set of technical  
16 parameters describing how a program is broadcast?

17 A. No, they aren't.

18 Q. Why -- why not?

19 A. Because --

20 THE WITNESS: If we can have the next  
21 picture, please.

22 A. -- every one of those items relates to this  
23 middle box of picture information. They -- they supply  
24 parameters that have values that are -- that are used by  
25 such things as signal separators and decompressors.

1           One, for example, he called a stream-type,  
2 that was one of the parameters. That's a decompression  
3 parameter, so that would control that box, for example.  
4 None of those parameters that he identified have  
5 anything to do with configuring the reception module,  
6 and therefore, they do not represent examples of control  
7 information for how to broadcast a signal or how --  
8 following the Court's construction, how the program was  
9 broadcast.

10           Q.     (By Mr. Berliner) So if we return now to Claim  
11 13 --

12                   MR. BERLINER: And, Your Honor, if I may  
13 approach one last time --

14                   THE COURT: You may.

15                   MR. BERLINER: -- to change the board?

16                   THE COURT: You may.

17           Q.     (By Mr. Berliner) And on this board, I have --  
18 I have put Claims 13, 15, and 16 of the '497 patent.

19                   MR. BERLINER: Oh, and before I move on,  
20 let me just note for the record that the two documents  
21 you just testified about were Exhibits DX 756 and  
22 DX 758.

23           Q.     (By Mr. Berliner) So returning to the claims,  
24 Claim 13 includes the limitation reception means for  
25 receiving a broadcast program picture and control

1 information which are broadcasted in accordance with a  
2 predetermined format, said control information  
3 specifying a broadcast system standard.

4           Mr. Wechselberger, is this limitation met by  
5 the TPV televisions?

6           A.    No, it is not met by the TPV televisions.

7           Q.    And -- and why not?

8           A.    Because none of the information identified by  
9 Mr. Goldberg affects how a television signal is  
10 broadcast. There are not parameters that relate to that  
11 function.

12          Q.    And do we need to then consider the additional  
13 limitations of Claims 15 and 16?

14          A.    No, we don't. These are dependent claims, and  
15 since Claim 13 has not been satisfied, neither Claim 15  
16 nor Claim 16 can be satisfied.

17               MR. BERLINER: And, Your Honor, may I  
18 approach the board?

19               THE COURT: You may. Although the last  
20 time you said it was my last time.

21               Go ahead. Go ahead.

22               MR. BERLINER: I don't know if I can  
23 reach it, but this really is my last time.

24               THE COURT: I'll believe it when I see  
25 it.

1 MR. BERLINER: I think I'm going to have  
2 to take this down rather than jump.

3 Q. (By Mr. Berliner) But would I be correct in  
4 crossing out the means for receiving?

5 A. Yes, you would.

6 Q. And how about Claim 15?

7 A. You can cross that out because it depends from  
8 Claim 13.

9 Q. And how about Claim 16?

10 A. Same thing, depends from Claim 13 -- 15.

11 Q. And do you have an opinion as to the  
12 infringement of Claims 15 and 16 of the '497 patent?

13 A. Yes. It's my opinion that Claims 15 and 16  
14 are not infringed by the TPV patents.

15 MR. BERLINER: Your Honor, I pass --

16 A. The TPV televisions. Excuse me.

17 MR. BERLINER: Your Honor, I pass the  
18 witness.

19 THE COURT: All right. Ladies and  
20 Gentlemen of the Jury, I expect there to be some lengthy  
21 cross-examination, given the length of time this witness  
22 has been on direct.

23 Therefore, I think this is probably a  
24 good place to take an early afternoon break. I'm going  
25 to give you about 10 minutes to stretch your legs.



1 Don't discuss the case. And we'll have you back in in a  
2 few minutes. You're excused to the jury room for the  
3 next 10 minutes.

4 The Court will stand in recess.

5 COURT SECURITY OFFICER: All rise.

6 (Jury out.)

7 THE COURT: The Court will stand in  
8 recess.

9 (Recess.)

10 (Jury out.)

11 COURT SECURITY OFFICER: All rise.

12 THE COURT: Be seated, please.

13 MR. BLACK: Your Honor, may we address  
14 one scheduling issue before we bring the jury back?

15 THE COURT: All right. What is that,  
16 Mr. Black?

17 MR. BLACK: Just a clarification on  
18 whether our -- I was talking to Mr. Dacus, and with  
19 respect to our rebuttal case, they don't have invalidity  
20 defense on some of the patents, and the question is  
21 whether we can bring our infringement experts back as  
22 part of our rebuttal for short rebuttal testimony.  
23 And Mr. Dacus is of the view that we can't, and Mr.  
24 Carroll is of the view that we can. And I just need  
25 guidance of the Court.

1                   THE COURT: Well, there are -- I mean,  
2 there are issues as to at least some of the patents,  
3 correct?

4                   MR. BLACK: Well, certainly there's -- on  
5 the '310 and the '375, there's -- there's invalidity,  
6 and we'll obviously have a right to put rebuttal on  
7 that.

8                   THE COURT: No question about that.

9                   MR. BLACK: On the infringement claims,  
10 on the '497 and the '243, the question is whether or not  
11 we have the right to put a rebuttal case on with respect  
12 to infringement. I don't see why not, but Mr. Dacus  
13 says that's inappropriate.

14                  THE COURT: Well, the rebuttal case  
15 should be confined to the Defendants' case-in-chief.  
16 You should use it to rebut the evidence that Defendants  
17 have put on. So if there's evidence that gives rise to  
18 a potential for rebuttal in the Defendants' case, then  
19 it's appropriate for your rebuttal case.

20                  MR. BLACK: That was my view, Your Honor.  
21 Thank you.

22                  THE COURT: Just so counsel will know,  
23 according to my calculations, the Plaintiffs are at  
24 11 hours and 11 minutes, which means you've got less  
25 than 2 hours left.

1 And the Defendants are at 10 hours and 16  
2 minutes. So you've got about 2 hours and 44 minutes  
3 left. So we're getting close on time.

4 Anything else before we bring the jury  
5 back?

6 Let's bring the jury back in, please, Mr.  
7 Skadden -- Shadden. Excuse me.

8 COURT SECURITY OFFICER: All rise for the  
9 jury.

10 (Jury in.)

11 THE COURT: All right. Be seated,  
12 please.

13 And cross-examination of the witness by  
14 the Plaintiff.

15 MR. PLIES: Thank you, Your Honor.

16 CROSS-EXAMINATION

17 BY MR. PLIES:

18 Q. Good afternoon, Mr. Wechselberger.

19 A. Good afternoon.

20 MR. PLIES: Mr. Pickett, could you please  
21 put up the demonstrative on the screen?

22 Go to the top, please.

23 Q. (By Mr. Plies) And, Mr. Wechselberger, can you  
24 please identify what's on the overhead?

25 A. This looks like one of the pages from my -- my

1 website.

2 Q. And do you know what this page is describing?

3 A. This is a sampling, without details or dates,  
4 of various kinds of legal experiences that I've -- that  
5 I've had just to give folks who are trying to figure out  
6 what Entropy Management Solutions is about.

7 This provides -- at least from the legal side,  
8 this provides a sample of the legal experiences.  
9 There's other pages which shows my consulting systems  
10 engineering work.

11 Q. So this page, then, is addressing the work  
12 activities you've had in the course of litigations in  
13 case support and so forth; is that fair?

14 A. A subset of that. It hasn't been updated in a  
15 couple of years.

16 MR. BERLINER: Mr. Pickett.

17 Q. (By Mr. Plies) So you said it hasn't been  
18 updated in a few years.

19 Are there more cases than this that can go on  
20 this page?

21 A. Yes.

22 Q. Do you know how many cases are on this page  
23 now that you've been involved with in terms of  
24 litigation activity?

25 A. No, I don't know. I don't remember.

1 Q. All just represent to you -- I counted 32,  
2 but, you know, I'm --

3 A. Okay.

4 Q. When was this page last updated?

5 A. Perhaps a year and a half ago, perhaps longer.  
6 Not more than two years ago.

7 Q. How many more litigation cases would be added  
8 to the list, if you added the ones from a year and a  
9 half -- since a year-and-a-half ago?

10 A. I really don't know. Perhaps 10 or 12.

11 Q. 10 or 12. Okay. So -- and how far back does  
12 the list go?

13 A. The list would go -- again, these are  
14 samplings of items that I thought might be of particular  
15 interest to people, but I started doing this kind of  
16 work in -- in, I believe, the year 2000, and I don't  
17 know if that -- if any of those early cases are  
18 reflected here or not.

19 Q. Sir, what percentage of your -- what  
20 percentage of your income in the last couple of years  
21 has been from being a technical expert in court cases?

22 A. Well, I had a similar question asked me during  
23 my deposition, and if this is the same -- I don't know  
24 if this is the same, but I struggled with it as well,  
25 because I wasn't sure what you meant.

1           For example, when you say court cases, there's  
2 a lot of work I do that never comes close to the  
3 courtroom. So I don't know if you need to include that  
4 or not.

5           Q. Do you recall the entry you gave me at the  
6 deposition was 70 to 80 percent?

7           A. 70, 80 percent of my income comes from -- I  
8 think I said assistance to the legal community.

9           Q. And that would include these 32 plus 12 or,  
10 what-have-you, litigation matters that you've been  
11 involved with?

12          A. Yes.

13                   THE COURT: Speak up a little bit,  
14 please, Mr. Wechselberger.

15                   THE WITNESS: Okay.

16          Q. (By Mr. Plies) Now, just to clarify something,  
17 do you recall at your deposition when I asked you how  
18 many times you've been an expert in the litigation  
19 manner on the side of TPV, and you told me it was at  
20 least between three to five times.

21                   And then when Mr. Berliner asked you, I think  
22 was the same question a little earlier today, I think  
23 you said twice. And I just wanted to get some  
24 clarification on how many times it was.

25                   Two, three, five times you've represented or

1 been on the same side as TPV?

2 A. Well, I know when the question came up at my  
3 deposition, I wasn't prepared for it and I guessed. The  
4 thing about my work with this client is the work has  
5 come. There will maybe be a flurry of activity and then  
6 will go dormant for six to eight months. I'd be asked  
7 to do something again, and I would do some work, and it  
8 would go away. And sometimes it would come back, in  
9 effect, be for a different case.

10 THE COURT: Mr. Wechselberger, that's not  
11 the question. That's not even close to the question.  
12 Try to answer the question.

13 A. The question is why is there discrepancy?

14 Q. (By Mr. Plies) Yeah. And today, you have --  
15 what's the number? Two, three, five?

16 I just want to get clarification.

17 A. As best I know, it's two.

18 Q. Okay. And over a sort of what --

19 A. Plus this one.

20 Q. So this makes it a third at least?

21 A. Yeah.

22 Q. Okay. And over what period of time have you  
23 been involved in litigation matters on the side of TPV?  
24 Has it been two years, three years, five years?

25 A. I would guess somewhere between three,

1 three-and-a-half. Three, three-and-a-half.

2 Q. Do you have any other clients that retain you  
3 as often as TPV has?

4 A. I think at least one.

5 Q. Out of the 40-some-odd cases and clients  
6 you've listed on your webpage?

7 A. Yes.

8 Q. Mr. Wechselberger, what's a re-examination  
9 proceeding?

10 A. That is when a patent, which has been issued,  
11 goes through -- and goes through all the steps that  
12 result in the patent being issued, goes through another  
13 series of steps by -- within the PTO.

14 Again, I'm not a patent attorney nor a lawyer.  
15 So it goes through another series of steps where a  
16 request has been made and granted. The USPTO takes a  
17 look once again at that patent and the claims perhaps in  
18 light of new prior art or other reasons to re-examine  
19 the patent to see if it should have been issued.

20 Q. Is it fair to say that it's a proceeding  
21 before the Patent Office that looks at an already issued  
22 patent to see whether it's still valid?

23 A. Again, within -- within -- that's my  
24 understanding as a non-attorney.

25 Q. And you've participated in a couple



1 re-examination proceedings; isn't that correct?

2 A. I've never -- I have provided consulting  
3 services to assist in providing information to the PTO  
4 for why a patent should be re-examined, if that's what  
5 you are asking me.

6 Q. Right. Is it fair to say that you've prepared  
7 statements for submission to the PTO in at least two  
8 cases, arguing that there were substantial questions as  
9 to the validity of issued patents?

10 A. I don't know the exact number, but I have done  
11 that. Yes.

12 Q. And other than this case, isn't it true that  
13 in at least four other litigation matters, you have  
14 prepared expert reports on the validity of patents in  
15 those cases?

16 A. Have I provided expert reports that opine on  
17 the validity like I did in this case?

18 Q. Correct.

19 A. Yes.

20 Q. And those four cases -- I think you might  
21 remember, we discussed them at your deposition --  
22 involved approximately maybe eight different patents,  
23 among those four cases.

24 Do you recall that?

25 A. I recall our discussion about that, and that

1 seems right.

2 Q. So an aggregate between this case, those four  
3 prior cases that you dealt with, and the two  
4 re-examinations that we mentioned a moment ago, by my  
5 count, there's sort of 13 opinions or statements that  
6 you've been -- you've prepared on the validity of  
7 patents.

8 Does that sound about right?

9 A. Probably, yes.

10 Q. And how many -- of those statements and  
11 opinions that you rendered, out of those 13, how many  
12 times did you find the patent valid?

13 A. Well, if I'm writing an invalidity report,  
14 then that -- that's not a conclusion that one would come  
15 to. So I'm confused by the question.

16 Q. You rendered 13 opinions or statements  
17 regarding whether a patent was valid or invalid,  
18 correct?

19 A. I don't recall ever -- when I'm working on  
20 behalf of a Plaintiff and I'm -- and the Plaintiff is  
21 asserting a patent -- a patent, then I would be arguing.  
22 If I'm asked, I would -- I would provide opinions as to  
23 why the patent is valid in light of prior art, so that  
24 would be that kind of an opinion.

25 If I'm on the defense and arguing invalidity,

1 then I would write a report with the basis for arguing  
2 invalidity.

3 Q. Maybe I can put it this way: Isn't it true  
4 that you've never signed a report finding a patent to be  
5 valid?

6 A. I've never been asked to.

7 Q. So that's a yes, right?

8 A. Yes.

9 Q. Do you recall traveling to D.C. a couple of  
10 years ago to testify before the United States  
11 International Trade Commission in a patent infringement  
12 matter?

13 A. I've done that, I believe, three times. Yes,  
14 three different times.

15 Q. And in one of those -- at least one of those  
16 times, you opined, is it not correct, to the  
17 administrative law judge that the patent suit was  
18 invalid? Is that right?

19 A. The what was?

20 Q. That the patent was valid?

21 A. On at least one of those occasions, I -- I  
22 argued that way. Correct.

23 Q. And do you know what the International Trade  
24 Commission found with respect to the patent's validity?

25 A. Well, the one I'm remembering, actually, I

1 testified on two different occasions before the ITC,  
2 and -- and I believe on the first time the actual -- the  
3 hearing, I think it -- it was ruled -- the patent was --  
4 they ruled against me, that the patent was valid.

5           And it came back again in an enforcement  
6 hearing about a year-and-a-half later. And I believe I  
7 was told at that time they found in my favor, that the  
8 patent was invalid, the same patent.

9           Q.     Now, we heard from Mr. Hamilton the other day.  
10 Were you in the courtroom when he testified?

11          A.     Yes.

12          Q.     And did you hear when he testified that in his  
13 work experience, he's actually designed large-scale  
14 integrated circuits for direct digital televisions, for  
15 example, when he was at ITT? Do you recall that  
16 testimony?

17          A.     Yes.

18          Q.     Have you ever personally designed a  
19 large-scale integrated circuit for a digital television?

20          A.     I've led design teams who have done that.

21          Q.     But you weren't personally doing the design  
22 work, were you?

23          A.     No. I was chief technical officer at TV/COM  
24 at the time.

25          Q.     And you've never personally designed an error

1 correction circuit, have you, Mr. Wechselberger?

2 A. Yes. Oh, yes.

3 Q. Didn't you tell me at your deposition that you  
4 didn't design such circuits?

5 A. Well, I wouldn't have answered -- the question  
6 you asked me just now was quite specific. As a design  
7 engineer working on digital audio systems in the early  
8 '80s for communications, I designed signal processing  
9 circuits, which included parity error correction on  
10 them.

11 I think when you and I were talking before,  
12 you were asking more about sophisticated things like  
13 Reed-Solomon and whatnot for digital TVs. There again,  
14 I was supervising such activity but personally not  
15 something I was doing.

16 Q. Okay. So what I'm understanding is you worked  
17 on some simpler error correction systems for audio, but  
18 you haven't worked on the more sophisticated ones for  
19 digital televisions?

20 A. In terms of actual circuit implementations,  
21 that's correct.

22 In my master's work at San Diego State, I  
23 designed paper algorithms for credit. So I have  
24 designed those, but I've not built them into chips.

25 Q. And you have two patents but neither one of

1 which is in the area of error correction, are they?

2 A. That's correct.

3 Q. And do you have any published papers on, for  
4 example, trellis coding or convolutional coding?

5 A. I have a paper that I presented at the NCT --  
6 NCTA on QAM -- on QAM and QPSK digital TV modems.

7 Q. Okay. But you told me at your deposition,  
8 though, that you didn't have actually any publications  
9 on trellis coding or convolutional coding; isn't that  
10 right?

11 A. Specific to trellis or convolutional coding  
12 and publications, I do not have a paper on those. Those  
13 are part of a QAM modulator or a QPSK modulator.

14 Q. Now, during today's -- your direct testimony,  
15 you repeatedly made some comments, for example, about  
16 the '310 and '375 patents being about videotape  
17 recorders and high-speed recording.

18 Do you recall that?

19 A. Yes. Yes.

20 Q. Is there anything in the claims that limits  
21 them to recorders? Does the word recorder appear in the  
22 claims anywhere?

23 A. I'd have to look at each claim. The ones we  
24 looked at today, I don't believe so.

25 Q. Are you aware of any Court claim construction

1 that limits the claims in suit to videotape recorders?

2 A. No.

3 MR. PLIES: Could I please get DD 125  
4 from the direct?

5 Q. (By Mr. Plies) So, Mr. Wechselberger, I was  
6 just going to use the figure on this slide as exemplary,  
7 but what comes in here on the antenna, what kind of  
8 signal?

9 A. The ATSC-compliant modulated signal.

10 Q. And does that signal include digital, video,  
11 and audio information?

12 A. Well, it includes everything on the -- on the  
13 multiplex. And if the multiplex is programming, then  
14 yes. It doesn't have to be programming, but, typically,  
15 it is.

16 Q. So for a television signal, it's going to --  
17 you would expect it to have video and audio?

18 A. Yes.

19 Q. And on this end, we have the bit-expanders,  
20 correct?

21 A. Yes.

22 Q. And that would include a video bit-expander  
23 and an audio bit-expander, correct?

24 A. Correct.

25 Q. So the input to the bit-expander would be a

1 signal that has video and audio information, correct?

2 A. So one type is used for each, so it would be  
3 video or audio.

4 Q. So at every stage in the signal processing  
5 process, in one form or another, the signal's going to  
6 contain video and audio all the way through the chain so  
7 that it can reach those bit-expanders at the end; isn't  
8 that correct?

9 A. Well, the -- the interface in yellow there is  
10 a specific signal. What is under the hood with that  
11 signal, these signal processing blocks don't know about.  
12 All they know about are the 1s and 0s.

13 So the 1s and 0s are a coded representation  
14 that will eventually emerge at the end of the chain as  
15 the audio or video information. But at any given  
16 interim stage, there's no audio or video signal there.

17 Q. But there's information at each stage that  
18 ultimately must represent the video and audio, correct?

19 It can't get lost or else there wouldn't be  
20 anything to input into the bit-expanders; isn't that  
21 right?

22 A. Are you saying that -- are you asking me if  
23 within the signals at each chain, there is ultimately  
24 going to be a representation of audio and video? I'll  
25 agree.



1                   MR. PLIES: Can you bring up the slides,  
2 please, my slides?

3           Q.     (By Mr. Plies) I wanted to see what maybe is  
4 not in dispute.

5                   You would agree, wouldn't you,  
6 Mr. Wechselberger, that the accused products all include  
7 a reception circuit, would you not?

8           A.     I need you to define what you mean by  
9 reception circuit.

10          Q.     A circuit for receiving an ATSC signal  
11 containing bit-compressed video and audio information.

12          A.     Like -- well, the problem -- the caveat I was  
13 putting was a reception typically includes a device  
14 called a tuner and another device called a demodulator.

15                   So I wasn't sure if you were referring to both  
16 of them together or one separately.

17          Q.     Okay. Well, would you agree they all include  
18 a tuner?

19          A.     The accused televisions?

20          Q.     Yes.

21          A.     Yes.

22          Q.     And do you have your laser pointer with you?

23          A.     Yes, I do.

24          Q.     Can you identify the tuner, please, on this --  
25 first of all, do you know what's shown on the current

1 overhead slide?

2 A. No, I don't. It looks like a board out of a  
3 television set.

4 Q. You're correct.

5 Could you identify the tuner, please?

6 A. Typically, that is a device shown in that  
7 silver box there. I heard Mr. Hamilton call it a  
8 cannon. That's indeed what we call them. It's a radio  
9 frequency shielded module that receives the input.  
10 You see the F-connector that's typically what -- you  
11 screw in the cable coming out of your wall or attached  
12 to your antenna, so I would assume that's the tuner.

13 Q. And is that tuner a separate and distinct  
14 component from the SOC?

15 A. Yes, it is. In this case, it looks like it  
16 is.

17 Q. And who would place that tuner on the main  
18 board?

19 A. Well, if this question has to do with the  
20 manufacturing of TVs, it's -- this is not something that  
21 I opined on or -- or studied. So when you asked me who  
22 would place a tuner on the board, I -- I don't know.

23 Q. Also, when I asked you at your deposition in  
24 January what brands TPV made televisions for, you  
25 weren't able to name a single one for me, were you?

1           A.    I don't recall if I named any for you. The  
2 specific brand of television really has nothing -- was  
3 outside the scope of what I was asked to do and what I  
4 did.

5           Q.    Perhaps, but -- but you are aware what the  
6 brands were that TPV sold to at the time.

7           A.    Well, I've heard some television brand names,  
8 but, like I said, I didn't pay any attention. It was  
9 out of the scope of my report.

10          Q.    All right. Turning back to the figure,  
11 though, on the -- the tuner, you would agree, again,  
12 that that is a distinct component from the SOC, correct?

13          A.    I'm looking at the figure, and it identifies  
14 the SOC as this ARM chip on the right -- upper  
15 right-hand corner. I believe I see that same chip  
16 mounted in the center of the board. And it -- a chip  
17 like that would not have a tuner as part of it, so a  
18 tuner would be separate.

19          Q.    And do you understand from Mr. Hamilton's  
20 presentation that Hitachi is, in its contentions and  
21 Mr. Hamilton, in his opinion, have indicated that it's  
22 that tuner which satisfies the receiver limitations?

23          A.    Yes.

24          Q.    So when Mr. Dacus walks around the courtroom  
25 holding an SOC above his head saying that Hitachi is

1 accusing the SOC, is accusing the SOC, that's not  
2 entirely accurate, is it?

3 A. I wasn't here for that. I don't know.

4 Q. Would you agree that the accused products all  
5 include a demodulation circuit?

6 A. Yes.

7 Q. Would you agree that all the accused products  
8 include a circuit that does Reed-Solomon decoding?

9 A. Ask me again, please.

10 Q. Is it fair to say that the accused products  
11 include a Reed-Solomon decoder?

12 A. Not as used in the asserted claims.

13 Q. But they do include a Reed-Solomon decoder,  
14 don't they, Mr. Wechselberger? I understand that it's  
15 your view that there is no infringement, but would you  
16 agree that there is a circuit in a television that does  
17 do Reed-Solomon decoding?

18 A. Not as used in the claim. If you want to  
19 hypothetically ask me, is Reed-Solomon decoding a parity  
20 correction process, I would agree it is, but as soon as  
21 you attach it to the accused TVs, I have to put a  
22 qualification in there.

23 Q. Okay. So I'm asking you just as an expert in  
24 the field, if somebody asked you on the street, without  
25 any perspective of our claims -- I'm not asking you to

1 look at it with respect to the claims, just based on the  
2 ATSC Standard, for example -- would you be able to  
3 answer whether the television included a Reed-Solomon  
4 decoder?

5 A. I would say that if any television is  
6 compliant to ATSC signal processing, then Reed-Solomon  
7 decoding functions would be part of what's in that TV  
8 somehow.

9 Q. And are Reed-Solomon decoding circuits  
10 commonly known or understood to be error correction  
11 circuits?

12 A. In textbook -- in textbooks, Reed-Solomon  
13 decoding is called an error correction process.

14 Q. And how about a trellis decoder? Do the  
15 accused products include a trellis decoder?

16 A. Yes. The accused products include trellis  
17 decoders.

18 Q. And in the art, are trellis decoders known as  
19 a type of error correction circuit?

20 A. That's part of what a trellis decoder does.  
21 They typically also doing symbols-to-bits translation.

22 Q. So they do error correction along with some  
23 other things; is that fair?

24 A. Trellis decoders perform error correction,  
25 yes.

1 Q. And do the accused products include MPEG 2  
2 video decoders?

3 A. If they're ATSC-compliant, they must do MPEG 2  
4 video compression.

5 Q. To your knowledge, are all the products  
6 ATSC-compliant televisions?

7 A. Yes.

8 Q. Is the term decoder and expander -- are those  
9 sometimes used interchangeably?

10 A. Yes. It's context driven, but we've been  
11 using them in this case interchangeably.

12 Q. And how about decompression? Is that perhaps  
13 another synonym?

14 A. Yes.

15 Q. Do the accused televisions include an AC-3  
16 audio decoder?

17 A. AC-3 decompression is required for them to be  
18 ATSC-compliant.

19 Q. Now, for a digital television, is it true that  
20 RF reception that is reception that the radio signal is  
21 going to come before demodulation, which is, in turn,  
22 going to come before error correction, which is, in  
23 turn, going to come before decoding in the video and  
24 audio?

25 A. Yes.

1           Q.    In your slides earlier, you had some mentions  
2 of Grand Alliance, and I believe you also had some of  
3 that in your expert reports.

4                   Do you recall that?

5           A.    Yes.

6           Q.    Can you identify the companies on the  
7 left-hand portion of your overhead slide?

8           A.    Those are the seven Grand Alliance companies.

9           Q.    Now, where is Philips based; do you know?

10          A.    I believe Philips World headquarters in The  
11 Netherlands.

12          Q.    Eindhoven, isn't it?

13          A.    Yes.

14          Q.    How about Thomson; do you know where Thomson  
15 is from?

16          A.    Are you talking about Thomson Corporate  
17 headquarters?

18          Q.    Yes.

19          A.    I believe they're in France.

20          Q.    So Mr. Dacus said I believe during opening  
21 statement said the Grand Alliance were all these  
22 American companies. That actually wasn't accurate, was  
23 it?

24          A.    My understanding is the U.S. divisions of each  
25 of those companies, in my personal knowledge, is -- the

1 U.S. division of each of those companies were Grand  
2 Alliance members.

3 But, yeah, Thomson has a parent company in  
4 France and Philips -- Philips North America, Philips,  
5 which I had business relationships at the time, was  
6 based in Manlius, New York.

7 Q. Now, what's being shown on the left-hand  
8 portion of the overhead slide -- I'm sorry --  
9 right-hand?

10 A. I see a bunch of company names. I -- I -- I  
11 don't know what -- why you're showing these to me.

12 Q. Well, didn't these appear in your rebuttal  
13 expert report at Paragraph 569?

14 A. I'm happy to look at it. I don't remember.

15 Q. Do these appear to you to be the MPEG LA ATSC  
16 patent pool licensors?

17 A. My recollections of the MPEG LA ATSC -- the  
18 ATSC pool or the MPEG pool?

19 Q. This is the ATSC pool.

20 A. Okay. When I studied that pool on the  
21 website, I saw hundreds of patents. And what I recall  
22 is being dozens of entities. If these are from that  
23 pool, then that's fine. I -- I just remember them being  
24 a lot more companies than this, but I -- I could be  
25 wrong.



1 MR. PLIES: Your Honor, may I grab my --

2 THE COURT: Yes.

3 Q. (By Mr. Plies) All right. So just to refresh  
4 your recollection, this is Paragraph 569 of your expert  
5 rebuttal report.

6 Do you recall this?

7 A. Yes.

8 Q. And this is identifying the companies in the  
9 MPEG LA ATSC patent pool?

10 A. Yes. It -- it -- it says the current patent  
11 pool includes patents contributed by Cisco Technology,  
12 et cetera. I thought your question to me earlier was  
13 limited to these, and that's all I was saying, is I'm  
14 not sure if this is the total list of companies.

15 MR. PLIES: Switch back, please.

16 Q. (By Mr. Plies) Well, let me represent that we  
17 got the list basically from your rebuttal report, and  
18 what I'm interested in, is how many of these companies  
19 are common between the Grand Alliance members and the  
20 licensors in the MPEG LA patent pool?

21 A. This is not something that I studied. I -- I  
22 wouldn't be competent to answer that. I don't know.

23 Q. Well, do you remember us discussing this at  
24 your deposition in January?

25 A. No, I don't.

1           Q.     Okay. Well, from looking at the list, we can  
2 see that Philips is in common and Zenith is in common,  
3 correct?

4           A.     I see Philips Electronics NV. I would assume  
5 that's The Netherlands corporate -- one of the  
6 corporate's bodies. On the left, Philips Consumer  
7 Electronics, I'm not sure if that's, as a corporate  
8 standpoint, the same entity. It's part of Philips. I  
9 would not disagree with that, but I wouldn't know that  
10 the top two items are, in fact, different  
11 representations for the exact -- the same business  
12 entity.

13          Q.     Let's back up a second.

14                     First of all, why don't you describe who the  
15 Grand Alliance was again for everybody.

16          A.     They were the seven companies that united  
17 their efforts at the request of the FCC to stop  
18 competing against each other in promotion -- promoting  
19 their own proprietary digital TV solution, to pool the  
20 technologies, and provide the best of the best, best  
21 compression, best modulation, so on, in a unified  
22 proposal to the FCC as a candidate for adoption for a  
23 standard for North American broadcasting.

24                     And it turns out at that time in that location  
25 and place, there were seven proponents who aligned

1 themselves. And from that point on was mostly referred  
2 to and currently referred to as the Grand Alliance.

3 Q. So they're the companies that basically  
4 prepared the ATSC standard; is that fair?

5 A. They're -- I'm sure there was other -- perhaps  
6 not entities like this, corporate entities, but I'm sure  
7 that they had other help. And the ATSC system is a  
8 result, as I alluded to earlier, also of MPEG  
9 technology, which came into that.

10 So I'm sure there were MPEG folks that knew  
11 about MPEG video compression and transport stream  
12 standards and so forth, who were assisting behind the  
13 screens. These guys just didn't operate in a vacuum.

14 Q. Now, the MPEG LA patent pool includes licenses  
15 that have been determined to be essential to practice  
16 the ATSC standard; isn't that correct?

17 A. That's my understanding.

18 Q. And that essentiality determination is made by  
19 some independent experts. Is that your understanding?

20 A. Yes.

21 Q. And what we see in these two lists, correct me  
22 if I'm mistaken, but the MPEG LA patent pool members  
23 that are listed here from your expert report include  
24 seven companies that were not members of the Grand  
25 Alliance; isn't that correct?

1           A.     Six or seven.  There are people -- there are  
2 companies on the right-hand side that are not part of  
3 the Grand Alliance.  I agree.

4           Q.     So isn't a fair takeaway point from this that  
5 there are companies that have essential ATSC technology  
6 that were actually not members of the Grand Alliance?

7           A.     Yes.

8           Q.     In your expert rebuttal report, you mentioned  
9 being a voting member of ATSC.

10                   Do you recall that?

11           A.     Yes.

12           Q.     And do you recall at your deposition, when I  
13 asked you how many ATSC meetings you attended, you  
14 indicated it was none?

15           A.     That's correct.

16                   MR. PLIES:  Nothing more.

17                   THE COURT:  Redirect?

18                   MR. BERLINER:  It will be very brief,  
19 Your Honor.

20                               REDIRECT EXAMINATION

21 BY MR. BERLINER:

22           Q.     Mr. Wechselberger, does TPV hire you because  
23 of your familiarity with the products that it sells?

24           A.     Yes.  Well, that's -- I've never asked them,  
25 but my assumption is I've been through the learning

1 curve. I've been through the drill, when I -- I assume  
2 so, because it saves time and money.

3 Q. How long did it take you to become familiar  
4 with their products?

5 A. Years.

6 Q. Do you recall a company called RCA?

7 A. Sure, Radio Corporation of America.

8 Q. Big electronics company. It was an American  
9 company, right?

10 A. Yes.

11 Q. Do you recall that they were acquired several  
12 years ago?

13 A. Yes.

14 Q. Do you know who acquired them?

15 A. I believe Thomson.

16 Q. And wasn't it the Thomson participants in the  
17 Grand Alliance who were really engineers that were from  
18 the RCA Company?

19 A. Yes, that's a fact.

20 Q. And how about Philips; does Philips have a  
21 North American subsidiary?

22 A. At that time, they had a facility with a  
23 research lab and -- and a research group in New York at  
24 that time.

25 Q. Do you recall anything about that research lab

1 in terms of its size?

2 A. I had done some joint development programs  
3 with them once under communication and once under  
4 TV/COM, and it seemed to me there were a couple hundred  
5 folks at that time. It was large.

6 Q. And were any of those folks any of the folks  
7 that participated in the ATSC?

8 A. Well, I can't speak to the people personally,  
9 but the last time I was at the lab I was being shown  
10 their new DVI, digital video interactive, consumer  
11 product, and there were specialists in compression  
12 technology. And that's the same time that the -- just  
13 before the Grand Alliance stuff fired up, so I'm  
14 assuming it's the same people.

15 Q. So even though Thomson and Philips have  
16 European parents, would you say that there were a lot of  
17 American engineers in those companies that was involved  
18 in the ATSC?

19 A. Everybody that I met was United States  
20 citizen.

21 MR. BERLINER: Pass the witness.

22 THE COURT: Further cross?

23 MR. PLIES: Nothing further, Your Honor.

24 THE COURT: All right. You may step  
25 down.

1 Defendants call your next witness.

2 MR. DACUS: Yes, Your Honor. We call Dr.  
3 Keith Ugone.

4 THE COURT: Am I correct this witness has  
5 been sworn?

6 MR. DACUS: Yes, Your Honor.

7 THE COURT: Okay. If you'll come forward  
8 and have a seat, please.

9 All right. You may proceed, Mr. Dacus.

10 MR. DACUS: Thank you, Your Honor.

11 KEITH R. UGONE, Ph.D., DEFENDANTS' WITNESS, PREVIOUSLY

12 SWORN

13 DIRECT EXAMINATION

14 BY MR. DACUS:

15 Q. Dr. Ugone, would you introduce yourself to the  
16 jury by telling them your name, please.

17 A. Sure. My name is Keith Raymond Ugone, last  
18 name is spelled U-G-O-N-E.

19 Q. And where do you live, Dr. Ugone?

20 A. I actually live in Grand Saline, Texas. So if  
21 you've ever gone to Trade Days, it's the next exit east  
22 of Canton where Trade Days are.

23 Q. Just so the jury knows a little bit about you,  
24 do you have children?

25 A. I do. Son No. 1, Kyle, is a captain in the

1 United States Marine Corps, and Son No. 2, Casey, lives  
2 with me and goes to University of Texas at Tyler.

3 Q. So what do you do for a living?

4 A. Well, the way I describe it is I say that I  
5 wear two hats, that I'm a forensic economist and a  
6 damage quantifier.

7 Q. Okay. I'm not sure that I know what either  
8 one of them are.

9 So the jury understands, would you tell us a  
10 little bit more about that.

11 A. Sure. So it's not -- it's not uncommon that  
12 companies get in disputes, much like we have this  
13 dispute in the courtroom. And usually one of the  
14 companies is claiming that another company has done  
15 something improper or has engaged in some kind of  
16 conduct that they think has harmed one of the companies.  
17 And so what I do is I try to figure out what the  
18 forensic economics part is. I figure out what happened  
19 financially or would have happened financially in the  
20 absence of the alleged wrongful conduct.

21 And the damages part of it is one of the  
22 companies is usually in the dispute such as this,  
23 claiming economic harm. And if there's a remedy for  
24 that, it's often called damages. So the quantification  
25 of that, those are all fancy words, but putting all that



1 together is the damage quantification part.

2           So the forensic economics, figuring out what  
3 was going on, and then adding up the numbers to figure  
4 out what the harm is or the damage is.

5           Q.    Is it that type of work that brings you to  
6 this courthouse to testify to this jury?

7           A.    Yes.

8           Q.    And so what -- what -- what have you been  
9 asked specifically to do in this case?

10          A.    Well, I was -- I was asked to evaluate the  
11 damages that was put forth by Hitachi's expert,  
12 Mr. Bratic, who you heard yesterday, and then also to  
13 give an evaluation of what I think would be an  
14 appropriate number, if the jury were to find that the  
15 patents are valid and infringed.

16          Q.    And then let's stop right there, because  
17 you're here to testify about damages, correct?

18          A.    That's correct.

19          Q.    Now, I want to be clear. You understand that  
20 TPV as a Defendant believes there are no damages.  
21 You understand that?

22          A.    That's my understanding.

23          Q.    Because we believe we don't use Hitachi's  
24 invention, and we don't believe that at least two of the  
25 patents are valid.

1 Do you understand that?

2 A. I understand that.

3 Q. But you're here because the law requires us,  
4 in case the jury disagrees with us, to put forth a  
5 number that we think is reasonable, true?

6 A. That's correct.

7 Q. Now, have you reached conclusions in this case  
8 with respect to the work that you've done?

9 A. Yes.

10 Q. Okay. And what are those conclusions?

11 A. Well, my first conclusion is that Hitachi's  
12 expert, Mr. Bratic, who you heard testify yesterday, has  
13 overstated the claimed damages. So I don't agree with  
14 the number that he put forth. And I'll explain why in  
15 my testimony today.

16 So that's one of my primary, first opinions.

17 Q. Okay. I'm -- we're going to talk in detail  
18 about that opinion, but before we do, I need to talk to  
19 you a little bit about your background.

20 Would you just briefly describe for the jury  
21 what your educational background is, please, sir.

22 A. Sure. So on the left-hand side, there you can  
23 see I went to the University of Notre Dame, and I got a  
24 bachelor's degree in economics in 1977.

25 And then I went to the University of Southern

1 California, and I got my master's degree in economics in  
2 1979, kind of a contradiction having to go to those two  
3 schools, because they're football rivalries.

4 And then I got my Ph.D. Arizona State  
5 University in 1983, and that Ph.D. is in economics. So  
6 I went to college for 10 straight years and all of three  
7 of my degrees are in economics.

8 Q. Tell us or give the jury some indication of  
9 what your work history and background has been since you  
10 obtained your Ph.D.

11 A. Well, after I graduated from Arizona State  
12 University in 1983, I taught for a couple of years  
13 full-time at one of the California State University  
14 System's schools, Cal State Northridge. So I taught  
15 there full-time teaching economics in the Department of  
16 Economics. I did that for two years.

17 I also then in 1985 joined  
18 PricewaterhouseCoopers. You've heard a little bit about  
19 that yesterday, but I also continued to teach part-time  
20 at Cal State Northridge, evening classes, for about  
21 seven more years. But I was with PricewaterhouseCoopers  
22 for 18 years, from 1985 through 2003.

23 And then at the very end of 2003, beginning of  
24 2004, I joined Analysis Group, and I've been there about  
25 nine years now.

1 Q. Is that the same PricewaterhouseCoopers that  
2 Mr. Bratic testified he'd worked at?

3 A. Yes. Yes.

4 Q. And I think somebody asked him if ever got to  
5 help count votes at the Grammys or go to the Grammys. I  
6 guess I'd better ask you the same question.

7 A. We have to be a little bit more careful. The  
8 Academy Awards.

9 Q. Is that what it is?

10 A. Yeah, Academy Awards.

11 Q. That shows you how much I pay attention.

12 A. So I didn't count the ballots, but I  
13 actually -- I was very fortunate to get to go to the  
14 Academy Awards once. That was fun.

15 Q. Tell us a little bit specifically about your  
16 work history in these damage analysis and forensic  
17 economy -- economics.

18 A. Sure. So I started doing the work that I do  
19 today, whatever it was, 27, 28 years ago when I started  
20 at PricewaterhouseCoopers. So this economics that I do  
21 in a dispute environment, I call that forensic  
22 economics, and this damage quantification work I've been  
23 doing since 1985. And I've worked on a large number of  
24 cases, patent cases, intellectual property cases over  
25 that period of time.

1           Q.     In these patent cases, do you necessarily work  
2 for one side or the other, or do you work for both  
3 sides?

4           A.     So not at the same time, but on some cases,  
5 I'll be on the patent holder's side; and other times,  
6 I'll be on the alleged infringer's side. It just  
7 depends on the nature of the engagement.

8           Q.     Okay. Let's explain for the jury, if you  
9 will, sort of what you looked at, what evidence you  
10 looked at to be able to come here and talk to them today  
11 about your conclusions.

12          A.     Well, there was a large amount of  
13 documentation that's available in a dispute such as  
14 this, and this documentation that's produced by the  
15 companies, or it could be independently obtained  
16 documentation, but -- or Hitachi documents, TPV  
17 documents.

18                 There were legal documents. There were sales  
19 records. There were license agreements. So those are  
20 all the things that you would take into account when  
21 you're doing the nature of the work that I performed.

22          Q.     And the jury may remember that Mr. Bratic told  
23 them that he used something called Georgia-Pacific  
24 Factors.

25                 Can you tell the jury whether or not you used

1 those, and if so, how?

2 A. Yes. So for some reason, the numbering got  
3 off on the slide there, but if you take 8 plus the 7,  
4 there's 15. So there's 15 Georgia-Pacific Factors. And  
5 those are factors that courts look to for guidance to  
6 try to solve this puzzle or this problem of what would  
7 be a reasonable royalty, if in this case, TPV and  
8 Hitachi had got together in a room and -- and negotiated  
9 a license agreement.

10 So this is -- the courts encourage you to look  
11 at these factors. They're what are called  
12 non-exclusive. You can look at other factors that might  
13 be important for a particular case, or you don't have to  
14 take into account all of these if -- given the facts and  
15 circumstances of the case. They may not be as relevant,  
16 but it's sort of a framework that's used when you're  
17 doing this type of work.

18 Q. Okay. I want to start focusing in on, if I  
19 could, what you told us earlier, and that is your --  
20 your opinion primarily that you're here to render is the  
21 fact that Mr. Bratic overstated the claimed royalty  
22 rate, correct?

23 A. Yes. That's my opinion, yes.

24 Q. At a high level -- at a high level, can you  
25 explain to the jury sort of the bases for coming to that

1 conclusion.

2 A. So there's really four things we're going to  
3 talk about, and that's what's on this slide here. And  
4 the reasons why I reached the conclusion that  
5 Mr. Bratic's royalty rate is too high -- and remember,  
6 what you have to do here, you take a royalty rate times  
7 the number of accused units gives the royalty damages.

8 So we're talking about the royalty rate part  
9 of it.

10 Q. Let me stop you right there, Dr. Ugone,  
11 because I skipped over something that I should have  
12 allowed you to comment.

13 When you say royalty rate times royalty base,  
14 it's this equation we have on this slide; is that right?

15 A. Right. So there's -- if you don't mind,  
16 there's no disagreement over the royalty base. That's  
17 about 11,094,000, relatively speaking. And so what  
18 we're really talking about is the royalty rate. In  
19 other words, what rate should be paid or applied to  
20 those 11 million units should the jury find that the  
21 patents valid and infringed.

22 Q. Yes, sir. Now you were going to tell us the  
23 reasons you think his rate is too high. And I apologize  
24 for interrupting.

25 A. Sure. And it goes through the four -- the

1 four considerations that I have there. One has to do  
2 with the licensing agreements that he used as sort of a  
3 benchmark licensing agreements to come up with his  
4 5-dollar-per-unit rate.

5           So there was a -- a benchmarking that he kind  
6 of did. I'm going to use that word, but we'll get back  
7 to that. So he used certain license agreements, and I  
8 disagree with his use of those license agreements. So  
9 that's Item No. 1.

10           There was another license agreement that he  
11 did not place enough weight on, so I'm going to comment  
12 on that. That's called the Amtran license agreement.

13           This third thing is, I use the term portfolio  
14 rates. He was using this term called a threshold rate,  
15 but it has to do with his use of some of the rates that  
16 were in the license agreements and the fact that they  
17 applied to many, many, many patents versus the few  
18 number of patents that we have in dispute in this case.

19           And then the fourth just is sort of a  
20 reasonableness test. When you look at his conclusion in  
21 light of the gross profit earned by TPV on average on  
22 their televisions, that his conclusion doesn't make any  
23 sense.

24           So those are the four areas that I'm going to  
25 comment on.



1 Q. Okay. Let's -- is it true that essentially  
2 those license agreements that Mr. Bratic looked at,  
3 you've characterized here is what you call DTV  
4 agreements?

5 A. Yes. And, in fact, what I've tried to do here  
6 is this is some verbiage that was taken out of  
7 Mr. Bratic's report, so I was trying to stay true to  
8 that. So, yes, that's how it was called in his report.

9 MR. DACUS: Can we pull up Slide 13,  
10 please?

11 Q. (By Mr. Dacus) And you were here when  
12 Mr. Bratic testified?

13 A. Yes.

14 Q. You remember this slide from his presentations  
15 to the jury?

16 A. I do, yes.

17 Q. Okay. And what I want to do is, is talk about  
18 each one of these, if that's okay with you, please, sir.

19 A. Okay.

20 Q. Let's -- let's actually just start with  
21 Tatung. Can you tell the jury what your opinion is as  
22 to whether or not Tatung is a comparable license that  
23 the jury should be considering, when trying to determine  
24 what a reasonable royalty is?

25 A. Okay. So these are Hitachi patents that were

1 licensed. So it goes along with Georgia-Pacific Factor  
2 No. 1. The Tatung license agreement had a royalty rate  
3 of 1.25 percent that was utilized by Mr. Bratic.

4 But what's interesting is, is that particular  
5 license agreement had -- I think it was 72 U.S. patents,  
6 and I think there were 126 foreign patents. So there's  
7 a large number of patents associated with that  
8 particular license. It's not just four. So it's  
9 important to -- to keep aware of that fact.

10 The other thing is, is that Tatung really  
11 makes computer monitors. Now, as part of the license  
12 agreements, televisions were licensed, but to the best  
13 of my knowledge, Tatung has made no royalty payments to  
14 Hitachi on any television sets.

15 So this was really a computer monitor-type  
16 arrangement for a large number of patents. Now, within  
17 those patents, it did have the patents-in-suit, and it  
18 had some other patents. But the point is, there was --  
19 you know, if you add the 72 and the 126, you're getting,  
20 you know, a lot of patents. There are almost 200  
21 patents, and it's mainly on computer monitors.

22 So for that reason, you have to be very, very  
23 careful if you're going to use that as a benchmark, and  
24 so I have some issues with that.

25 Q. Let's cover this globally, because I think we

1 can cover it for the first four licenses there that Dr.  
2 Bratic relied on, and that is, how many patents did  
3 these folks get rights to, when they paid whatever  
4 amount they paid?

5 A. Yeah. Well, I'm going to be a little specific  
6 on the Wistron one, because there were, I believe, 31  
7 patents, U.S. patents on the Wistron license agreement.  
8 And I think I counted up 80 foreign patents.

9 On the remaining ones, it was 31 BOE, 31  
10 patents again, U.S. patents and Amtran, I believe, was  
11 31 again. And it said all the foreign counterparts. So  
12 I couldn't add those up, but I don't think it would be  
13 an unreasonable assumption to say it would be at least  
14 in the neighborhood of 80 again.

15 Those are the explicitly stated patents that  
16 are covered by the license agreements.

17 Q. And then did you hear Mr. Bratic say that  
18 these folks actually got rights to 3,000 patents?

19 A. Right. So it's just a fancy term. There's  
20 something called a non-assertion provision, that Hitachi  
21 would not sue these entities relating to intellectual  
22 property associated with 3,000 other patents. And  
23 that's -- that's a valuable right to obtain in a license  
24 agreement.

25 Q. And so do you agree with Mr. Bratic, when he

1 says that whatever Tatung, Wistron, BOE, and Amtran  
2 paid, they got the rights to 3,000 patents for that  
3 payment?

4 A. I would agree with his phraseology on that.  
5 Somebody, a legal person might describe it differently,  
6 but from an economic perspective, that's the equivalent  
7 of what you just said.

8 Q. Okay. Let's -- and the right-hand column over  
9 there, I guess we can all read that. It says real  
10 world, correct?

11 A. Yes.

12 Q. Okay. And that's what I want to spend a  
13 little bit of time talking about.

14 MR. DACUS: I can't seem to get this to  
15 move forward. Well, there we go. That's the one I need  
16 right there.

17 Q. (By Mr. Dacus) I want to talk about this  
18 Wistron rate, and you remember from the slide that we  
19 were looking at and what Mr. Bratic told the jury  
20 yesterday is that that 1-percent rate was the equivalent  
21 of 3 to \$5 for a Wistron and BOE.

22 A. Yes.

23 Q. Do you remember that?

24 A. Yes, I do.

25 Q. Tell the jury what it is we see on the screen

1 right now.

2 A. Well, essentially -- and I believe you saw  
3 this chart yesterday, but this is what's calculating  
4 sort of an effective royalty rate or, you know, if we  
5 want to say it a little differently with math, sort of a  
6 weighted average royalty rate.

7 In other words, if you take that 1 percent and  
8 multiply it by the TV prices, and given the TV prices of  
9 the Wistron products, when you get to the very, very  
10 bottom line, you'll see that \$2.34. But if you remember  
11 yesterday in these patent agreements for licenses, 25  
12 percent, everybody agrees, goes to some other patents  
13 that are not in dispute here.

14 So you're left with 75 percent for the  
15 remaining patents, so 75 percent of the \$2.34 leaves  
16 \$1.76. So let me -- let me just summarize that.

17 So if you looked at the TVs that Wistron was  
18 selling and if you say what effectively have they paid  
19 on a per-TV basis that go to the non-DDC patents, if  
20 everybody remembers that, that's \$1.76 for Wistron.

21 Q. So to the extent the jury was left with the  
22 impression that the real world was that Wistron was  
23 paying or is paying between 3 and \$5, that's not  
24 accurate, is it?

25 A. That's -- that's correct. Now, they had --

1 they had -- they were given options in the license  
2 agreement, but given the option they chose, it ended up  
3 being \$1.76 net.

4 Q. And let's talk about this in detail. There's  
5 a bunch of numbers under an exhibit number.

6 Can you explain to the jury just very briefly  
7 what that -- what those numbers represent?

8 A. Under exhibit numbers, so those would be  
9 Defendants' exhibits and it lists some numbers, and so  
10 that's how you find those documents. And then the page  
11 number tells you where to look in that particular  
12 document.

13 Q. And that's what I want the jury to know.  
14 These are documents that were produced in this case, and  
15 you actually looked at them, correct?

16 A. Yes. Yes.

17 Q. And so that the jury understands, these  
18 documents are the same ones that they put on the  
19 overhead and asked -- asked Mr. Matsuo about, and he  
20 pointed to the 5-dollar number, correct?

21 A. I'm sorry. Just ask that question again.

22 Q. Sure. These DX numbers, these documents that  
23 you looked at --

24 A. Yes.

25 Q. -- it's the same document that was put on the

1 overhead when Mr. Matsuo testified, and he pointed to  
2 the 5-dollar number?

3 A. I think I remember that. Yes.

4 Q. Okay. So --

5 MR. DACUS: Your Honor, this is DX 722,  
6 DX 723, DX 724, DX 725, and DX 726.

7 Do we have this same one for BOE,  
8 Mr. Lodge?

9 There we go. Thank you.

10 Q. (By Mr. Dacus) I want to do the same thing  
11 with respect to that BOE license. And you remember what  
12 Mr. Bratic said is, the 1 percent equates to somewhere  
13 between 3 and \$5.

14 And did you do -- go through the same  
15 calculation for BOE that you went through for Wistron?

16 A. Well, if you look at the BOE royalty reports  
17 and you do the same sort of calculations where you look  
18 at the 1 percent times the price of the TVs, and then  
19 you adjust for this 25 percent you have to carve out for  
20 unrelated -- these unrelated patents, when you're all  
21 done -- and it's called on a weighted average basis, so  
22 across all the different TVs, they're -- they, on  
23 average, are paying \$1.22 per TV royalty under that  
24 agreement.

25 Q. Okay. Now, I failed to ask you something

1 about that 3,000-patent issue.

2 Do you have an understanding as to the number  
3 of patents this jury is going to be asked to value if  
4 they find infringement?

5 A. Yes.

6 Q. And what number is that?

7 A. That's four patents.

8 Q. Okay. And you heard Mr. Bratic say yesterday  
9 that his position to the jury is that you pay the same  
10 for four as you do for 3,000.

11 A. That's correct.

12 Q. Okay. Do you agree with that?

13 A. No, I do not agree with that. And that's one  
14 of the issues that I have, is how he treated the royalty  
15 rates in those license agreements.

16 So remember what I said. There were 31  
17 explicitly stated patents covered by the license  
18 agreement. So that's more than four. There's the  
19 foreign counterparts, and then there's what's called  
20 this non-assertion provision, which is basically 3,000  
21 patents. So that's what you're getting for those  
22 royalty rates.

23 THE COURT: Counsel, approach the bench,  
24 please.

25 (Bench conference.)



1 THE COURT: I don't want to slow this  
2 down, but you can't ask him, do you agree with that, and  
3 then he gives a five-minute dissertation. You're going  
4 to --

5 MR. DACUS: Yes, sir.

6 THE COURT: You're going to have to ask  
7 direct questions.

8 MR. DACUS: Yes, sir.

9 (Bench conference concluded.)

10 THE COURT: All right. Let's continue.

11 MR. DACUS: Thank you, Your Honor.

12 I need Slide 13 again, please, Mr. Lodge, so we can  
13 complete this.

14 Q. (By Mr. Dacus) We talked about Tatung,  
15 Wistron, and BOE and what's happening in the real world.

16 I want to focus, Dr. Ugone, on Panasonic,  
17 Sanyo, and Sharp, and we'll come back to Amtran.

18 Can you tell the jury whether or not, in your  
19 opinion, these are license agreements that they should  
20 be relying on in making a determination as to the  
21 reasonable royalty?

22 A. Yeah. I would not -- I would encourage the  
23 jury not to rely on those license agreements. Those are  
24 what are known as very broad cross-license agreements.

25 In other words, you have Hitachi and Panasonic

1 making a license agreement; Hitachi and Sanyo; Hitachi  
2 and Sharp; but there's a huge number of patents going  
3 back and forth.

4 I think there was deposition testimony that  
5 Hitachi's side of it had like 6,000 patents. So you  
6 have very, very large companies having these broad  
7 what's called cross-licensing agreements.

8 Now, sometimes there's something called a  
9 balancing payment. One side is going to say, hey, we  
10 contributed a little bit more, so you need to make a  
11 payment in addition to the license, and that was going  
12 on in these, but there's a large number of patents in  
13 each of these agreements.

14 MR. DACUS: We can move on now,  
15 Mr. Lodge, to the next slide, if we could. Let me back  
16 up.

17 Q. (By Mr. Dacus) Does that -- that covers the  
18 category there of the DTV agreements, Dr. Ugone?

19 A. Yes. Yes.

20 Q. Now, I'd like to talk to you about these other  
21 data points or data (pronouncing) points that Mr. Bratic  
22 asked the jury to consider. But the first one there  
23 is -- it's got a line through it. Can you tell us what  
24 that license agreement is and why it has a line through  
25 it?

1           A.     He originally had that as supporting his  
2 opinion in his report, but then he ended up not talking  
3 about that at trial yesterday.

4                   MR. DACUS:   And I've got a note.   I need  
5 to back up to the BOE and read in for the record so that  
6 the record's complete that the exhibit numbers  
7 referenced are DX 727, DX 728, DX 729, and DX 796.

8           Q.     (By Mr. Dacus) And I interrupted you,  
9 Dr. Ugone.   On the -- on the MPEG 2 agreement, is -- is  
10 that a patent pool like Dr. Bratic was talking -- I  
11 mean, Mr. Bratic was talking about yesterday?

12          A.     Yes.   So there's actually two line items there  
13 where you see at the beginning MPEG LA, and I think the  
14 jury has heard that they're the administrator of some  
15 patent pools.

16                   The one with the line through it is this MPEG  
17 2 patent pool, and I think we have a slide that just  
18 shows some economic-related information related to that  
19 patent pool.

20          Q.     Let me ask you this:   Do you know what -- for  
21 televisions, do you know what amount of royalty is paid  
22 by licensees related to the MPEG LA MPEG 2 pool?

23          A.     Right, during the relevant time period.   So  
24 there was a bit of mistake in Mr. Bratic's report, but  
25 it's like \$2 to \$2.50, that range.

1 Q. Okay. And so that we stay clear -- it's a  
2 little confusing -- there's an MPEG 2 pool and an MPEG  
3 ATSC pool, correct?

4 A. That's correct.

5 Q. All right. So I'll try to keep those  
6 straight. I want to talk about the MPEG 2 pool and what  
7 licensees get when they pay this \$2 to \$2.50.

8 MR. DACUS: I'm having a hard time  
9 getting that to forward, Mr. Lodge. If you could help  
10 me, please, sir.

11 Thank you.

12 Q. (By Mr. Dacus) Can -- can you explain to the  
13 jury, for that \$2 and \$2.50 that licensees pay, how many  
14 companies contribute patents to that particular pool?

15 A. All right. So this -- again, we're keeping in  
16 mind sort of the comparability to the four  
17 patents-in-suit from an economic perspective.

18 And in the MPEG 2 patent license program  
19 administered by MPEG LA, you can see on the left that  
20 there's 27 different companies that are part of that  
21 what's called a consortium, that are part of that, and  
22 the patent pool has 750 unexpired patents, 90 of which  
23 are in the United States.

24 So if you think about it, just, again, from an  
25 economic perspective -- we're not talking the technical

1 side -- there's a 2 to \$2.50 royalty payment per unit,  
2 but there's 27 different people -- companies that that  
3 royalty rate gets split among, and that's across a very  
4 large number of patents.

5 MR. DACUS: Your Honor, may I use the  
6 whiteboard, please?

7 THE COURT: You may.

8 MR. DACUS: Flip chart?

9 Q. (By Mr. Dacus) Something that Mr. Carroll did  
10 the other day, Dr. Ugone, was a reasonableness check,  
11 and the jury is here to find what a reasonable royalty  
12 is, correct?

13 A. Yes.

14 Q. So if we wanted to do a reason --  
15 reasonableness check related to this particular patent  
16 pool, what you're telling us, as I understand it, is  
17 that for MPEG 2, each company in there, since they paid  
18 roughly \$2.50, received 10 cents for each television  
19 approximately; is that correct?

20 A. Right. So the money comes in. If there's a  
21 \$2.50 payment and if that gets split equally among the  
22 firms, that would be just a little under the 10 cents  
23 you put on the board there.

24 Q. Okay. And if we wanted --

25 A. I'm sorry. Per company.

1 Q. And if we wanted to do it on a per-patent  
2 basis, we'd have to divide the 200 and -- the \$2.50 by  
3 the 750 patents, correct?

4 A. Yes. And that would be about a third of a  
5 cent or so.

6 Q. Okay. So somewhere around .003 for each  
7 television sold?

8 A. Yes.

9 Q. And -- and so that -- so that I make sure I  
10 understand, the --

11 A. I'm sorry. I'd make your decimal point a  
12 little bit darker so people can see it.

13 Q. Okay. I'd be happy to do that. I certainly  
14 don't want them to miss that decimal point.

15 So --

16 THE COURT: All right. Questions and  
17 answers, not statements.

18 MR. DACUS: You bet.

19 Q. (By Mr. Dacus) All of the patents that are in  
20 this pool, do you have an understanding as to whether or  
21 not an independent expert reviewed those patents and  
22 determined that they were essential to the standard?

23 A. That's my understanding, yes.

24 Q. Okay. I want to talk to you about the MPEG  
25 ATSC standard, different from MPEG 2.

1           How many companies contribute patents to the  
2 ATSC pool?

3           A.     So as we see in the chart here -- so this is  
4 the ATSC patent pool, still administered by MPEG LA, but  
5 in this pool, there's eight licensors that belong to the  
6 pool, 129 essential patents -- now, that's total of  
7 which 48 are U.S. patents.

8           Q.     Okay. So on our reasonableness check -- well,  
9 let me ask this: How much does a licensee pay for the  
10 rights to the patents in the pool?

11          A.     If you were to sign a license for the ATSC  
12 patent pool, that would be \$5.

13          Q.     Okay. And on a per-company basis, how much  
14 does, on average, each company receive?

15          A.     That would be eight into the \$5. So it's a  
16 little over 60 cents, probably like 62 cents or so.

17          Q.     And, again, there's 129 patents, so we'd have  
18 to divide that \$5 by 129 to know, on average, what they  
19 get per patent?

20          A.     That's correct, yes.

21          Q.     Have you done that math?

22          A.     Well, I could do it in my head real quick, if  
23 it's -- we're talking about maybe 4 cents. If there are  
24 125, it would be the 4 cents.

25          Q.     And, again, has each one of these patents in

1 the pool been independently determined to be essential  
2 to the ATSC standard?

3 A. That's my understanding, yes.

4 Q. Have you seen any evidence in this case that  
5 any of these patents have been evaluated by an  
6 independent expert and been determined to be essential?

7 A. When you're talking about these patents,  
8 you're talking about the patents-in-suit in the case?

9 Q. The four patents-in-suit?

10 A. Yeah. I'm not aware of that.

11 Q. The third data point down here, I guess it's  
12 the fourth data point that Dr. -- I mean, Mr. Bratic  
13 talked about is the Zenith agreement. Tell the jury  
14 whether or not you have an understanding as to whether  
15 or not licensees actually pay this \$5 for patents -- for  
16 a license to the patents -- the Zenith patents?

17 A. The easiest way to describe it is, there's a  
18 little bit of double counting going on in this chart,  
19 because there's the MPEG LA ATSC, which are \$5, and then  
20 the Zenith agreement, which is \$5.

21 But if you can maybe go back to the one chart,  
22 you'll see that there's Zenith, if you look on the  
23 left-hand side, and Zenith actually joined the  
24 consortium. So there isn't a separate payment to Zenith  
25 of \$5 and a separate MPEG LA for the ATSC patent pool.



1           So that's a little bit of double counting,  
2 looking at it twice when it's really just one payment.

3           Q.     So to the extent that the jury was left with  
4 the impression that Zenith is receiving \$5 for its  
5 patents, that's not accurate, is it?

6           A.     That would be correct.

7           Q.     In fact --

8                   MR. DACUS:   Nay I approach the chart,  
9 Your Honor?

10                  THE COURT:   You may.

11           Q.     (By Mr. Dacus) In fact, Zenith is part of this  
12 MPEG ATSC, and on average, they're receiving 60 cents  
13 for their pool of patents, correct?

14           A.     Correct.

15           Q.     And you know from your work in this case and  
16 sitting in this courtroom that Zenith was actually a  
17 member of the Grand Alliance, correct?

18           A.     Yes, that's my understanding.

19           Q.     And you know that their patents have been  
20 independently determined to be essential to the ATSC,  
21 correct?

22           A.     Yes, and they're part of the alliance or part  
23 of the consortium.

24           Q.     All right. The last agreement I need to talk  
25 to you about is this QAM-related agreement. Is that an

1 agreement that you believe the jury should consider if  
2 they get to make a determination on reasonable royalty?

3 A. Well, I think there's important information  
4 that the jury should consider that's associated with  
5 that license agreement, yes.

6 Q. Okay. What is it?

7 A. If I remember correctly, there were 15 U.S.  
8 patents, and I think 34 foreign patents, and as  
9 Mr. Bratic testified yesterday, that dealt with cable  
10 rather than digital TV.

11 Q. So do you believe that's a comparable  
12 agreement that they should be giving heavy consideration  
13 or weight to?

14 A. Well, I would not put heavy weight on it,  
15 that's correct.

16 Q. I think that covers all of those agreements.  
17 I want to ask you, Dr. Ugone, when we were talking about  
18 a reasonableness check, do you take -- in your analysis,  
19 do you take into consideration at all the amount of  
20 gross profit that TPV would make and how that would  
21 affect the amount of reasonable royalty that should be  
22 paid?

23 A. Well, that's -- it's certainly a  
24 consideration. In other words, companies are in  
25 business. There's market forces that determine how much

1 you can sell a television for. You've got costs of  
2 production. You ultimately subtract your costs from  
3 your revenues, and you get what's called profits.

4 One measure of profit is called a gross  
5 profit. And there was some testimony that TPV's gross  
6 profit is \$7.43 on average for the TVs that they sell.  
7 So that's their gross profit.

8 Q. And how -- how does the gross profit affect  
9 how you, as an economist, analyze what might be paid as  
10 a reasonable royalty?

11 A. Well, if you think about it -- again, we're in  
12 a very competitive industry. We're talking about these  
13 television sets and selling them, and companies, in  
14 order to stay in business, have to earn a profit. They  
15 have to earn a return on their investments. They have  
16 to be able to invest in the future, those sort of  
17 things.

18 And if you also think about what companies  
19 contribute to getting a product to the market, they  
20 might have to do the R&D. They establish their customer  
21 relationships. They build the television sets. There's  
22 all the things that a company does.

23 And the return on that is certain measures of  
24 profit. Here we're looking at a gross profit measure.  
25 But the point I wanted to make is that Mr. Bratic's

1 opinion was that \$5 of that \$7.43 should go to a royalty  
2 payment. And if you think of the scale and the way of  
3 the relative contributions and in a sense of what the  
4 parties are doing, that's unreasonably high.

5 Q. And can you tell the jury what we're looking  
6 at here, please, sir?

7 A. So this is kind of an exploding piechart, but  
8 if you take that \$7.43, what Mr. Bratic is saying is  
9 that \$5 should go to Hitachi and only \$2.43 should go to  
10 TPV.

11 Q. I need to back up. On this MPEG ATSC, I  
12 failed to -- to mention, Dr. Ugone, so that the jury  
13 understands what's in the record, and that is the actual  
14 patent pool license agreements you've reviewed, correct?

15 A. Yes. Yes.

16 Q. And those are marked as DX 43. And then the  
17 attachment which identifies the companies is PTX 64,  
18 correct?

19 A. Yes.

20 Q. And likewise on the MPEG 2, you've reviewed  
21 those actual agreements, correct?

22 A. Yes.

23 Q. They're DX 447 and PTX 66, correct?

24 A. Correct.

25 Q. Now, you've heard some -- we've heard some

1 discussion about this Amtran agreement.

2 Is that an agreement that you considered in  
3 your analysis in this case?

4 A. Yes.

5 Q. Okay. And how does -- how -- what should the  
6 jury take from the Amtran agreement, in your opinion?

7 A. Well, the first thing I want to do is just  
8 describe sort of the financial end of the agreement.

9 Now, keep in mind that the agreement had 31  
10 different patents that were licensed as part of the  
11 agreement. Three of those were the DDC patents. They  
12 were the patents-in-suit. And then there's 25 other  
13 patents. So that just gives you a little bit of  
14 framework around the license agreement in terms of  
15 numbers of patents.

16 But I'll phrase it as the original agreement.  
17 There was an 18.5-million-dollar payment. Now, it  
18 occurred in sort of two segments, two lump sums of a  
19 10-million-dollar payment and then an 8.5-million-dollar  
20 payment.

21 But essentially, from an economic perspective,  
22 the agreement allowed Amtran to produce 18.5 million TVs  
23 for that combined 18.5-million-dollar payment. So the  
24 effective royalty rate was a dollar per TV in the --  
25 what I'll call this initial part of the agreement.

1           Q.     Now, what I need you to help explain to the  
2 jury, Dr. Ugone, is if they decide these patents are  
3 infringed, is the Amtran license one in which you think  
4 they should pay particular attention to, and if so, why?

5           A.     The answer is yes, and for a number of  
6 reasons. Because Amtran and TPV are big players in this  
7 market in terms of manufacturers of the TVs. They're  
8 competitors, so they go head-to-head. They produce very  
9 similar TVs, so I've looked at that. And they also sell  
10 to some of the same companies.

11                     So you have a competitive situation where  
12 Amtran -- I won't use the word proxy, but in a sense is  
13 a proxy for what would have happened with TPV for the  
14 reasons that I just said. And so that's why I put  
15 weight on this license agreement.

16           Q.     So in other words, if we go back to this  
17 hypothetical negotiation that both you and Mr. Bratic  
18 are required to construct your analysis within, this  
19 would be a representation of perhaps the same seat that  
20 TPV would be sitting in.

21                     Is that what you're saying?

22           A.     Yes. And that's what I meant by using the  
23 word proxy, so...

24           Q.     Understood. Understood.

25                     So did -- using this Amtran license agreement,

1 did you make your own independent calculation of what a  
2 reasonable royalty would be?

3 A. Yes.

4 Q. Okay. And I want to talk a little bit about  
5 that. We've got this slide.

6 Can you explain what this shows, please, sir?

7 A. So we've got Hitachi's DTV patent license.  
8 That's what we're talking about. And remember what I  
9 said; there were 31 explicit patents in that agreement,  
10 not counting the -- the foreign counterparts.

11 We know from other testimony that three of  
12 those patents are what are called the DDC patents, and  
13 there's been testimony and it's in the record and  
14 deposition, that 25 percent of the royalty is carved off  
15 for those patents.

16 And so what you're left with is the 75 percent  
17 of the royalty rate. So remember, we saw the dollar,  
18 and there was also \$1.75 up there that I haven't quite  
19 mentioned yet. But there's a dollar and \$1.75, but 75  
20 percent of that is for the remaining patents.

21 The question is, what's the remainder? So  
22 that 75 percent, what does it get you? That's really  
23 the question.

24 It gets you the non-asserted 25 patents.  
25 That's that other bucket of patents when you carve out

1 the DDC and you take out the patents-in-suit. In this  
2 case, there's 25 left over.

3 There's the four patents-in-suit, and they  
4 also get this non-assertion provision where Hitachi is  
5 not going to assert any -- let's just say they're not  
6 going to get upset at the Amtran, if they violate or use  
7 any of the intellectual property of 3,000 other patents.

8 Q. Did -- one question I failed to ask you about  
9 this Amtran agreement.

10 Were you in the courtroom when Mr. Matsuo and  
11 Mr. Bratic testified that Hitachi gave Amtran a  
12 discount, some sort of discount related to this  
13 agreement?

14 A. Yeah. My recollection is on Mr. Bratic's  
15 chart, I'm thinking he put special discount.

16 Q. Right. And Mr. Matsuo, I think, testified  
17 that it was related to a revenue shortfall at Hitachi.

18 Do you remember that?

19 A. Or at least I've seen discussion that that's  
20 one of the reasons, yes.

21 Q. In the course of your work here, did you come  
22 to know approximately what Hitachi's annual revenues  
23 are?

24 A. In the last couple of years, it was very high.  
25 It was about \$112 billion --



1 Q. Okay.

2 A. -- as a total company.

3 Q. Okay. Now, did you -- this framework that you  
4 gave us, did you actually put numbers to this to come up  
5 with your own independent calculation of a reasonable  
6 royalty?

7 A. Yes. So this -- this is helping us kind of  
8 get the mindset of what's going on, and then I've done  
9 some calculations.

10 Q. Okay. So is that what's shown on the board  
11 here?

12 A. Yes.

13 Q. And can you explain this to us?

14 A. Yes. So in one of the charts, we saw that  
15 the -- the royalty rates in the Amtran agreement range  
16 from a dollar to \$1.75. And so that -- you see that  
17 those -- at the top there, it says Amtran royalty per  
18 TV, I've got a dollar column and \$1.75.

19 Now, we know 25 percent comes off the top,  
20 because that's for these other DDC patents. That leaves  
21 a remainder of 75 percent. Well, 75 percent of a dollar  
22 is 75 cents, and 75 percent of 1.75 is 1.31, so that's  
23 really what we're talking about for everything else that  
24 doesn't have to do with these DDC patents.

25 THE WITNESS: So if we could just go back

1 one slide, if you don't mind.

2 A. So that 75 cents and the \$1.31 now gives you  
3 coverage on what was at the bottom there, the 25  
4 non-asserted patents, the four patents-in-suit, and,  
5 frankly, the 3,000, the provision that says Hitachi  
6 won't get upset if you use the intellectual property on  
7 the other 3,000 patents.

8 And so if you do an allocation and we know  
9 that there's some similar patents in the 25 that are  
10 non-asserted relative to the patents-in-suit, so if you  
11 just split the 75 cents and the 1.31, that gives you  
12 37.5 cents as a lower bound and 65.6 cents as an upper  
13 bound, using the Amtran license agreement as a guidepost  
14 for what TPV and Hitachi would have agreed to for these  
15 four patents-in-suit.

16 Q. So that I make sure I understand, your  
17 independent calculation of a reasonable royalty would be  
18 between -- let's just call it 37 cents and 65 cents for  
19 each television sold, correct?

20 A. Yes. And there's a reason why it's  
21 conservative. I've given a range to the jury, so I'm  
22 not just giving them just one number. I'm saying the  
23 answer would have been between 37.5 and 65.6 cents.

24 MR. DACUS: And may I approach, Your  
25 Honor?

1 THE COURT: You may.

2 Q. (By Mr. Dacus) If we were doing a  
3 reasonableness check, since it's a reasonable royalty,  
4 for these patent pools that have independently  
5 determined essential patents within them, each company  
6 is receiving between 10 cents and 60 cents per  
7 television, correct?

8 A. Right. And -- and it -- I think that's  
9 important to point out that what we're saying here is,  
10 when that \$5 on MPEG ATSC is paid, when you now look at  
11 that on a per-company basis, it's going to be in that  
12 range that you have on the board there. So that's kind  
13 of the reasonableness test.

14 Q. Great.

15 A. So -- I'm sorry. Each company is not getting  
16 \$5. That's the point I was trying to make.

17 Q. Understood.

18 Like you recommend for Hitachi here 37 cents  
19 to 65 cents per television, correct?

20 A. Yes.

21 Q. That's the same as what's being paid in these  
22 essential pools to each company, correct?

23 A. Correct. Correct. Correct.

24 Q. Okay.

25 MR. DACUS: That's all the questions I

1 have, Your Honor. I pass the witness.

2 THE COURT: All right. Ladies and  
3 Gentlemen, I think we all will be well-served with  
4 another short break. It's late in the afternoon. So  
5 before cross-examination begins, let's take about a  
6 10-minute recess. Allow you to stretch your legs and  
7 get a drink of water, but obviously don't discuss the  
8 case.

9 We'll be back in shortly to continue with  
10 cross-examination, but until then, we stand in recess.

11 COURT SECURITY OFFICER: All rise.

12 (Jury out.)

13 (Recess.)

14 COURT SECURITY OFFICER: All rise.

15 THE COURT: Be seated, please.

16 Mr. Shadden, would you bring in the jury,  
17 please.

18 Mr. Black, you can go to the podium, if  
19 you like. I assume you're going to do the cross.

20 MR. BLACK: Yes, Your Honor.

21 COURT SECURITY OFFICER: All rise for the  
22 jury.

23 (Jury in.)

24 THE COURT: Be seated, Ladies and  
25 Gentlemen.

1 All right. Cross-examination of the  
2 witness by the Plaintiff.

3 CROSS-EXAMINATION

4 BY MR. BLACK:

5 Q. Good afternoon, Mr. Ugone. How are you?

6 A. I'm doing all right. How are you?

7 Q. Great. Great. What's your hourly rate?

8 A. \$5 -- or \$570 an hour.

9 Q. You have no actual experience in license  
10 negotiations, right?

11 A. I have helped in the background, but I haven't  
12 sat at a table and negotiated. I'm a forensic economist  
13 and damage quantifier.

14 Q. You haven't sat at the table actually  
15 negotiating real-world licenses like Mr. Matsuo has,  
16 right?

17 A. That's correct.

18 Q. Or your former colleague, Mr. Bratic, who's  
19 actually done that work, correct?

20 A. He's done that work. I don't disagree with  
21 that. I do forensic work and damage quantification in a  
22 dispute setting.

23 Q. I understand.

24 Your actual background is in economics, as you  
25 mentioned during your slide presentation, correct?

1 A. Yes.

2 Q. And one of the things that economists do is  
3 they think really hard about what real-world motivations  
4 are and how people come together and transact business,  
5 right?

6 A. I would agree with that. Sure.

7 Q. That's actually the fundamental piece of  
8 economics, isn't it?

9 A. Well, with economics, you talk about -- in  
10 microeconomics, you talk about the theory of the firm,  
11 how companies go about maximizing profits, or you talk  
12 about consumers and how they go about maximizing the  
13 satisfaction they get from the goods they consume.

14 So those are all motivations, and that's why I  
15 agree with what you said.

16 Q. And -- and you understood that your job here  
17 was to construct a hypothetical negotiation between  
18 Hitachi and TPV, correct?

19 A. I will agree with you. The end -- the end  
20 result was what's a determination of a reasonable  
21 royalty, and that's one framework for doing that. Yes.

22 Q. Right. You kind of started at the end with  
23 what you thought the rate should be, something like  
24 37-and-a-half cents, but you didn't --

25 A. No.

1           Q.    -- you didn't really spend a lot of time  
2 talking about what the actual motivations of the parties  
3 would be in the hypothetical negotiation, did you?

4           A.    I'm sorry. I can't agree with the -- I don't  
5 understand the question. I didn't start with a  
6 37 cents. I knew what I would have to come up with as a  
7 reasonable royalty, and after my analysis, I came up  
8 with a range I presented to the jury.

9           Q.    Okay. Let's take -- let's just get some  
10 fundamentals down first. Did you --

11                       MR. BLACK: May I go to the board, Your  
12 Honor?

13                       THE COURT: You may.

14           Q.    (By Mr. Black) You heard Mr. Houg testify,  
15 correct?

16           A.    Yes.

17           Q.    And Mr. Houg testified that the average  
18 price, average price of a TPV television in the United  
19 States was \$285.

20                       Do you remember that?

21           A.    I believe that's currently, but yes.

22           Q.    Actually, a lot higher than the prices of some  
23 of the other licensees that you put up there before,  
24 isn't it?

25           A.    There was a range of prices for each of the

1 licensees, but that average price is higher. Yes.

2 Q. Correct. It's actually significantly higher,  
3 and you did not mention that to the jury, did you?

4 A. It's \$285 versus you can back into some prices  
5 on the other ones. I didn't explicitly say that. I'm  
6 not going to disagree with you. I didn't explicitly say  
7 that.

8 Q. And \$2.85 times 1 percent is -- that's pretty  
9 easy math -- that's \$2.85 (sic) cents?

10 A. I'll agree with you, you've some problems with  
11 your decimal points there, but I'll agree with what  
12 you're saying, the words you're saying.

13 Q. Okay. You know, you're right. That will fix  
14 that. Two -- so if TPV had entered into the agreement  
15 and PTX 92 that was proposed to it by Hitachi, rather  
16 than entering in litigation, the rate they would have  
17 paid under the agreement would have turned out to be  
18 \$2.85, right?

19 A. If you're asking me to make some assumptions,  
20 that they had agreed to 1 percent. Now, I want to be  
21 careful, because there's the 25-percent deduction off of  
22 that, but I want to be careful with your question.

23 But if you're asking me mathematically, if  
24 it's 1 percent times \$285, mathematically that gives  
25 \$2.85. But we need to be careful conceptually with that



1 25 percent that comes off the top of everything else.

2 Q. So if you apply TPV's base and product  
3 pricing, you'd start with 2.85, and then you would  
4 allocate, as Mr. Bratic did, 75 percent to the  
5 patents-in-suit and 25 percent to DDC, right?

6 A. If I start with the assumption you asked me to  
7 make and we go through the math, you would take  
8 75 percent of -- of that, recognizing that that's also  
9 to a whole lot more than the four patents-in-suit.

10 Q. Let's talk about that, but for now, the 70 --  
11 the 75 percent would make it -- if we did the math at  
12 the table before here, and it's 2.14. I'll represent  
13 that to you. Get it wrong, Mr. Dacus can run his  
14 calculator and correct me on redirect, all right?

15 All right. So the TPV rate is actually  
16 significantly higher than the rates you were showing the  
17 jury before from some of the other agreements, because  
18 TPV's product price is a lot higher, right?

19 A. If my definition we're calling this the TPV  
20 rate, that's not what I believe the TPV rate would be.  
21 But I'm going along with your math, and the math that  
22 would be 2.14 before any adjustments for the fact that  
23 there's a lot more licenses -- or a lot more patents in  
24 the benchmark licenses. But I will agree with your  
25 math.

1                   MR. BLACK: Could you put the -- my slide  
2 with the door up, please? The door.

3           Q.     (By Mr. Black) Okay. Patents, when they are  
4 licensed, give the licensee access to technology, right?

5           A.     I'll agree with that. Yes.

6           Q.     And if TPV, Mr. Houn, had been standing in  
7 front of this door with four locks, one for the '243,  
8 one for the '310, one for the '375, and one for the  
9 '497, trying to get into the door to the technology  
10 behind it --

11          A.     Uh-huh.

12          Q.     -- they would need four keys, right?

13          A.     In your analogy, since there's four locks, one  
14 lock for each patent, in your analogy, there's four  
15 keys. So it would be required.

16          Q.     And since what TPV wants to do is to get  
17 inside to the technology, it doesn't do them any good to  
18 buy one key, right?

19          A.     In your analogy, they would need four keys.

20          Q.     If they were to buy the key from Hitachi and  
21 unlock the '497 patent, they'd still be standing outside  
22 the door, wouldn't they?

23          A.     In -- in your analogy.

24          Q.     They wouldn't have access to the technology,  
25 right?

1           A.     I mean, there's a lot of other things going  
2 on, but I'll accept your analogy, and I'm answering the  
3 question. But there's a lot of other things going on.

4           Q.     And no sane licensee would purchase a key for  
5 the '497 patent without, at the same time, getting the  
6 other keys, right?

7           A.     I'm sorry. I just missed your question. I  
8 just didn't get it.

9           Q.     No sane licensee who wants access to the  
10 technology would purchase a key only to the '497 and not  
11 to the other patents, right?

12          A.     If -- if your products are deemed to use the  
13 technology of the four -- your four locks, the four  
14 patents, if you're going to use that technology, then  
15 you would need a license to the four patents.

16                 So that's what we're talking about here, but  
17 you would not ignore all the other market dynamics, all  
18 the other license agreements, the ATSC agreements, and  
19 what you would have to pay for those as well as a  
20 benchmark.

21                 So I'm not disagreeing with your analogy, but  
22 there's a lot of dynamics and other considerations to  
23 take into account.

24          Q.     But we want to focus here on the dynamics in  
25 the hypothetical negotiation between Hitachi and TPV,

1 right?

2 A. I agree a hundred percent with that.

3 Q. And Hitachi says if you want to get through  
4 the door to our technology, we'll let you do that for a  
5 price. And that price isn't going to vary by the number  
6 of keys you buy. We're not going to try to sell you a  
7 key to the '497 and come back the next day and sell you  
8 a key to the '375, and the day after that.

9 And conversely, TPV would never accept such a  
10 thing, right?

11 A. If you're saying would they negotiate for the  
12 four patents at the same time, I would agree with that.

13 Q. That's exactly what I'm saying. And.  
14 It's true that the number of patents has no relevance to  
15 the value to the licensee; the number does not matter?

16 A. I have to disagree with you. When we're using  
17 market indicators for the value of these four, that's  
18 where I was bringing in the number of patents.

19 When you're using other benchmarks, you've got  
20 to make sure your comps, what you're comparing it to,  
21 you have apples and apples, not apples and oranges.  
22 That was the point of the discussion I was making. So I  
23 wasn't splitting these four apart. I was keeping these  
24 four together, but I was saying if you're going to  
25 compare these four to these other benchmarks, you've got

1 to make sure the benchmarks are comparable.

2 That was the point of my testimony.

3 Q. Did you hear Mr. Matsuo's testimony that  
4 Hitachi has approximately 1500 digital television  
5 patents --

6 A. I --

7 Q. -- in the United States?

8 A. Yeah. I thought the number was like 3,000.

9 Q. I think he said 1500 in the United States,  
10 3,000 overall.

11 A. I'll accept that representation.

12 Q. But let's just clear one thing off the table  
13 right now. You spent some time talking about numbers of  
14 license -- numbers of patents and dividing them into  
15 amounts paid. You included some foreign patents in that  
16 analysis.

17 Do you remember that?

18 A. It depends which calculation you're talking  
19 about. Some of them -- and it depends which licenses  
20 you're talking about. If you make it a little bit more  
21 specific, I can answer your question.

22 Q. But nobody has to pay a royalty in the United  
23 States -- for a United States patent, if they sell the  
24 product in Japan or Korea or China or France, right?

25 A. Yeah. If we're only talking about the U.S.

1 and we're not talking about elsewhere, I'm not going to  
2 disagree with you. I'm trying to say that if you look  
3 at the benchmark licenses, there were foreign components  
4 there. And that's why I brought that up.

5 Q. But those foreign components are irrelevant to  
6 the hypothetical negotiation you were asked to construct  
7 between TPV and Hitachi, correct?

8 A. I will agree 100 percent that what we're  
9 talking about here is the use or the alleged use of the  
10 technology within the United States, and so that's what  
11 we're trying to figure out.

12 My only point was all of those other license  
13 agreements were worldwide, and that's a dynamic that you  
14 would take into account.

15 Q. But the payment -- the payment, the royalty  
16 payments would only be due upon sale in the United  
17 States, correct?

18 A. Yeah. I'm not going to disagree with that.

19 Q. Now, let's talk about the number of patents.  
20 If I were to bring in Hitachi's 1500 patents into the  
21 courtroom, assuming the folks at the front gate didn't  
22 stop me --

23 A. Okay.

24 Q. -- they would probably reach up to the  
25 ceiling. If I were to take TPV's 14 U.S. patents and

1 put them on the floor right here, you'd barely be able  
2 to see them, right?

3 A. I'm not going to disagree that 1500 is a  
4 higher stack than 14.

5 Q. And do you think that TPV should pay more or  
6 less money simply because Hitachi has a lot of patents?

7 A. I'm not -- I'm not sure if I understand your  
8 question.

9 I was not comparing at all -- I never compared  
10 TPV number of patents to the number of Hitachi patents.  
11 I never spoke to that.

12 Q. The hypothetical negotiation would be  
13 conducted not based on the number of patents somebody  
14 can put down on the table but on the value of those  
15 patents; isn't that right?

16 A. I'll agree with you on the value of the  
17 patents, and so that's what I was trying to calculate.

18 Q. And the value of the patents here to TPV is  
19 something that's absolutely critical to understanding  
20 the dynamics -- the economic dynamics of the  
21 hypothetical negotiation, correct?

22 A. If you're asking me did I assume that the  
23 patents were valid and infringed as I must -- as I must  
24 make that assumption, yes, I made that assumption.

25 Q. And you've heard the testimony in this case

1 that the patents-in-suit are essential to TPV's desire  
2 to sell digital televisions in the United States, right?

3 A. I've heard, I think, some of the experts talk  
4 about different types of essentiality. Sometimes they  
5 said essential; sometimes they said commercial  
6 essentiality.

7 So we have to be careful with that definition,  
8 but I think I heard some of those phrases. They didn't  
9 say they were all essential.

10 Q. And that, in the real world, that in the  
11 hypothetical negotiation you were asked to construct  
12 would give Hitachi tremendous leverage; isn't that  
13 correct?

14 A. There would -- you'd look at the weights.  
15 When you go in and you're negotiating, where are the  
16 forces and pressures? So Hitachi would say, I've got  
17 these patents and you need the technology.

18 What TPV would be doing is and what the  
19 construct of the hypothetical negotiation is, what's a  
20 reasonable royalty? And a reasonable royalty is not a  
21 situation where somebody comes in and just asks for the  
22 sky.

23 The point I was trying to make is when you use  
24 market benchmarks and you look at those market  
25 benchmarks, you get something very different than the



1 \$5. You get the numbers that I was talking about.

2 Q. In the hypothetical negotiation, what's  
3 important to the licensee?

4 A. I'm sorry. What's important to the licensee?

5 Q. Yes.

6 A. I would say there are a number of things that  
7 are important to the licensee. So under the construct,  
8 assuming that the patents are valid and that you're  
9 going to use the technology, just making that  
10 assumption, they're going to need a license, but also  
11 they're going to take into account -- it's kind of like  
12 when you sell or buy a house, you look at what other  
13 comparable houses have sold for.

14 So part of the negotiating dynamic would be,  
15 what are some benchmark licenses? You'd also look at  
16 making sure that the company is still able to earn a  
17 rate of return on their investment.

18 So those are all the things that go into these  
19 negotiations.

20 Q. Actually, in every negotiation -- this is the  
21 fundamental point of economics -- the negotiation is  
22 driven by people's alternatives; isn't that right?

23 A. I would say that there's more fancy words that  
24 economists use, but I'm going to agree with that. Sure.

25 Q. When a seller sells a house, he can only sell

1 it once, right?

2 A. Legally.

3 Q. Yes. When Hitachi sells the right to enter  
4 that door, it can do it as many times as it wants; isn't  
5 that right?

6 A. When it licenses, not when -- I wouldn't use  
7 the word sell in that context, but they can give what's  
8 called non-exclusive licenses. You can license your  
9 technology to a number of different entities just like  
10 they did.

11 Q. On the other hand, TPV doesn't have the option  
12 to go buy another house. They need a key to get into  
13 the U.S. market; isn't that right?

14 A. I would agree that they -- in your analogy  
15 that they need to a key to get through the door, just  
16 like they need a key to the ATSC standards that are part  
17 of MPEG, and MPEG was charging the \$5 divided by the  
18 number of firms, which brings us back to that 60 cents.

19 So that's a real-world benchmark.

20 Q. We're going to come back to that.

21 A. Okay.

22 Q. But for now, you did not discuss at all the  
23 dynamics that were going on at TPV who retained you in  
24 this case at the time of the hypothetical negotiation in  
25 your testimony, did you?

1           A.     You have to be a little bit more explicit, but  
2 I don't think I went into detail on that. No.

3           Q.     No. When was the hypothetical negotiation?

4           A.     It would be August 2004.

5           Q.     And how big was TPV's United States television  
6 business at that time?

7           A.     Well, they were just entering into the market.  
8 As the jury heard, they purchased Philips' basically  
9 television business, but that was part of the strategy  
10 to get into the market at the time.

11          Q.     It was a key strategy for them, right?

12          A.     Among other things. They also had a lot of  
13 prominence -- a lot of prominence in the market with  
14 computer monitors at the same time.

15          Q.     Right. They had generated tremendous profits  
16 in the computer monitor business; isn't that right?

17          A.     That they -- they were a very big player.  
18 Yes.

19          Q.     And, in fact, they had amassed enough cash  
20 that they could purchase the entire television business  
21 of Philips; isn't that right?

22          A.     I believe there was some testimony with  
23 respect to purchasing Philips' television -- television  
24 business. Yes.

25          Q.     For \$400 million, right?

1           A.     That's what I recall the testimony to be.

2     Yes.

3           Q.     And at the time, Hitachi and Philips had an  
4     agreement where they would share their technology,  
5     correct?

6           A.     I heard some testimony to that, that there was  
7     a licensing agreement or something was going on. I do  
8     remember that testimony.

9           Q.     And TPV got no rights to Hitachi's technology,  
10    when it bought the Philips business; isn't that right?

11          A.     The best I can say is I heard some of the  
12    testimony that was presented at trial here. I didn't --  
13    I don't have any independent knowledge of what you're  
14    asking about.

15          Q.     And TPV never came to Hitachi and said we'd  
16    like a license to your essential patents in the digital  
17    television field, did they?

18          A.     Yeah. I can just say what I've heard here at  
19    trial, that there is some commentary on the purchasing  
20    of the business. There was some testimony about Philips  
21    having a license, and that I think there was some  
22    testimony that that wasn't necessarily transferred to  
23    TPV.

24                   MR. BLACK:   Would you put my other slide  
25    up, please?

1 Q. (By Mr. Black) Do you remember being deposed  
2 in this case?

3 A. I do.

4 Q. And Mr. Edwards over there asked you the  
5 following question: Will you agree with me that a lot  
6 of companies at the point that they know they're going  
7 to enter a market to sell a particular product, seek out  
8 all the proper intellectual property rights that they  
9 need in order not to infringe somebody's patents?

10 Do you remember that question?

11 A. I believe I do. Yes.

12 Q. And you said: I would agree with you, and  
13 maybe even say it more strongly, that a prudent business  
14 person wouldn't wait until the day before they're going  
15 to sell a TV and ask the question, do I need -- you  
16 know, is there some intellectual property rights that I  
17 need to get?

18 They would want to negotiate those -- the  
19 earlier on as -- as a prudent business person. So I  
20 agree with the proposition.

21 Is that your answer?

22 A. That's my answer. It's a different context.  
23 I absolutely said those words. I believe those words.  
24 It was in a different context, but I said those words.

25 Q. A prudent business person would have gotten

1 the intellectual property rights they need before  
2 entering the business, right?

3 A. Yes. And the point I was making here was that  
4 you should -- in the hypothetical negotiation, you can't  
5 just say, oh, here's the day before -- before you make  
6 the first sale and negotiate a license then, because  
7 that would create certain outcomes that are not -- would  
8 not be part of a reasonable construct, because --

9 Q. TPV did not act prudently within your  
10 definition here, did they?

11 A. You know, I can't agree with the inferences  
12 you're making, because that goes into other aspects of  
13 the case as to whether they thought they needed  
14 intellectual property or not. That's not part of what  
15 my -- my work was in this area.

16 Q. What percentage of the worldwide monitor  
17 market does TPV control now?

18 A. Well, I'm not sure, but I think they're a  
19 major player.

20 Q. Something like 35 percent, isn't it?

21 A. I was going to say somewhere between, yeah,  
22 20 and that number, but...

23 Q. Almost roughly one-third of every computer  
24 monitor in the world is made by TPV; isn't that right?

25 A. I don't -- I can't say the exact numbers, but

1 I don't disagree with the relevant range that you're  
2 saying. I just don't know the exact number.

3 Q. And TPV's business plan is to do the same  
4 thing in the TV industry, isn't it?

5 A. We heard testimony that they thought there  
6 were complementarities between the monitor business and  
7 TVs, and they decided to enter into the market.

8 Q. And in a couple of years, they became the  
9 largest OEM manufacturer of televisions in the world,  
10 correct?

11 A. I believe -- yes, I -- they are large. Amtran  
12 is large, but they're --

13 Q. Have you not heard several times at this trial  
14 that TPV is the largest -- larger than Amtran?

15 A. I think -- I think they're close, but I'm not  
16 going to disagree with you.

17 Q. And one way that someone can become the  
18 largest in the world is by keeping their costs  
19 artificially low by not paying for intellectual property  
20 rights; isn't that right?

21 A. There's -- I think we heard some testimony as  
22 to the mission statements and strategy of TPV in terms  
23 of R&D quality products, low costs, getting a good  
24 product to the consumers. So if we take away this  
25 concept of one way to keep costs low is not to pay for

1 intellectual property, if we just talk about what do  
2 firms try to do in terms of put out a low-cost product  
3 that still has high quality, I'm not going to disagree  
4 with you.

5 Q. And low costs are very important to TPV,  
6 right?

7 A. I would say the television industry is a very  
8 competitive industry, so it's important to everybody in  
9 the industry.

10 Q. Right. So if everybody else in the industry  
11 is paying 1 percent or three-quarters of a percent or  
12 1-and-a-quarter percent, and TPV isn't paying that, that  
13 gives them a tremendous competitive advantage, doesn't  
14 it?

15 A. It depends on the numbers you're saying. It  
16 could be that if it turns out that the intellectual  
17 property is being used, then I've given an opinion as to  
18 what the payment should be. But you've made the  
19 assumption that, you know, the intellectual property is  
20 being used.

21 Q. Well, for the hypothetical negotiation, we are  
22 all required to make that assumption, aren't we?

23 A. That's correct, but I thought you were talking  
24 about the real world.

25 Q. With respect to the patent pool licenses that



1 you referred to, you provided some testimony, and Mr.  
2 Dacus did some math up here showing how much each patent  
3 would be worth or each entity would receive from the  
4 patent pool.

5 Do you recall that?

6 A. Under different allocation methodologies, yes.

7 Q. Well, actually the allocation methodology was  
8 the same every time. You just took the dollars divided  
9 by the number of entities in the pool, right?

10 A. No, because once we did it by the number of  
11 entities and once by the number of patents. That's why  
12 I said the different allocation methodologies.

13 Q. Have you examined the allocation, the pool  
14 allocation --

15 A. The --

16 Q. -- agreements?

17 A. I've done some research on that, and they  
18 don't say exactly how they do the allocation. That's  
19 why we gave that boundary. If you do it just based on  
20 the number of firms, here's the answer. If you do it on  
21 the number of patents, here's the answer.

22 It's probably somewhere in between.

23 Q. Do you find it odd that Zenith was getting \$5  
24 for its ATSC patents, but then they joined the pool, and  
25 you said that they would have been allocated something

1 like 60 cents? Does that bother you?

2 A. No, because that's what they did as a business  
3 decision.

4 Q. Well, they joined the pool.

5 A. Right.

6 Q. But you didn't check the pool allocation  
7 between Zenith and the other members of the pool, did  
8 you?

9 A. Would I -- well, that's not quite true.

10 Q. You don't know that Zenith gets \$3.75 out of  
11 the ATSC pool?

12 A. What I know is that I've seen documentation  
13 that there was -- for certain entities that were paying  
14 Zenith, they didn't have to pay into the pool. They got  
15 the rights to all the patents without having to make an  
16 extra payment into the pool.

17 Q. I want to address one last point with you,  
18 this profit margin point.

19 MR. BLACK: May I go to the board, Your  
20 Honor?

21 THE COURT: Yes, you may.

22 Q. (By Mr. Black) You put up a pie chart, and you  
23 told the jury that TPV cannot afford to pay the rate  
24 because it has a low profit margin, right?

25 A. I did not use those words. That's not what I

1 said.

2 Q. You said that -- that TPV had a profit margin  
3 of -- what was it? 7 point --

4 A. \$7.43.

5 Q. \$7.43.

6 A. And that the royalty was \$5.

7 Q. Right.

8 A. And so the point I was making is, the \$5 in  
9 relation to the 7.43 was unreasonable for a variety of  
10 reasons.

11 Q. Let's talk about the hypothetical negotiation,  
12 okay? That takes place before the first sale, right?

13 A. Actually, that goes back to the answer I was  
14 giving in my depo. But, yes, it's -- in the extreme,  
15 you could say, okay, the day before you first sell your  
16 TV, you'd have this hypothetical negotiation.

17 Now, what I was trying to say on the screen  
18 was that nobody would do it that way, but I'll accept  
19 that for our questions here.

20 Q. Okay. But the day before the -- the day  
21 before the start of infringement, what is TPV's profit  
22 margin on televisions?

23 A. Well, I'm not sure if I understand your  
24 question.

25 Q. That's right. Because it's zero. They don't

1 have a profit margin at that time; isn't that right?

2 A. Well, but -- I don't disagree with you that  
3 they wouldn't have the TVs, but you look at expected  
4 profits going forward.

5 Q. Right.

6 A. Nobody would go in and say, I'm not making any  
7 money.

8 Q. So let's say TPV decided that they were going  
9 to enter the television business. They'd have to pay  
10 for a number of things. They'd have to pay for the  
11 parts to make a television, right?

12 A. Material, yes. Material.

13 Q. They'd have to pay for labor --

14 A. Yes.

15 Q. -- right?

16 A. Yes.

17 Q. They would have to pay for -- I don't know --  
18 shipping costs and transportation and sales and  
19 administration, things like that, right?

20 A. Sure. General administrative and selling  
21 costs, marketing costs, all of those types of costs,  
22 yes.

23 Q. There's one more thing they need to be in the  
24 television business, isn't there?

25 A. I know where you're going, but yes.

1 Q. Can you think of what it is?

2 A. Well, those would be royalty payments, if  
3 they're using -- if they're going to use technology --

4 Q. Okay.

5 A. -- another cost would be a royalty payment.

6 Q. Technology.

7 Now, if TPV decides they're going to go into  
8 the business and they're going to add up material,  
9 parts, labor, and the SG&A and come up with a price,  
10 that they have no profit.

11 A. I'm sorry. I missed your question.

12 Q. Let's say they decide to go into the market  
13 with a low-cost strategy.

14 A. Okay.

15 Q. They decide to enter the market -- we'll give  
16 them a profit. A profit of a dollar on every  
17 television.

18 A. Okay.

19 Q. They're going to undercut the market, expand  
20 dramatically over a short period of time and take over  
21 the market and become number one. That's the strategy,  
22 okay?

23 A. Okay.

24 Q. So they've got a 1-dollar profit margin.

25 A. In your example here?

1 Q. Yeah. And then -- and they're doing that  
2 without paying anybody for the technology that they  
3 need.

4 Do you see the problem?

5 A. I'm not sure if I understand your example, but  
6 I'm willing to keep going with it.

7 Q. And -- and then somebody like Hitachi knocks  
8 on the door and says: Hey, wait a second. If you want  
9 the technology, you have to pay for it.

10 A. Okay.

11 Q. And TPV says: But my profit margin is only a  
12 dollar. Let's go to court, and we'll say that we can't  
13 pay you anything.

14 Does that seem right to you?

15 A. Let's try it this way: There's intellectual  
16 property laws in the United States. And if someone's  
17 using a technology, my understanding of the law is that  
18 there's compensation that can be paid for that.

19 The point I was making with the \$7.43 and the  
20 \$5 is that there's market dynamics. There's a  
21 competitive market. There's pricing pressures of how  
22 far you can up the price. And that would be part of the  
23 hypothetical negotiation.

24 Q. And all of TPV's competitors had those same  
25 pricing problems, right? Same low-cost issues, same

1 pricing pressures, same customers, right?

2 A. I'm not going to disagree with you that  
3 they're all in the same market. We heard yesterday in  
4 cross-examination from Mr. Bratic that a lot of those  
5 companies aren't using the technology.

6 Q. But TPV has an advantage that they don't have,  
7 right? They don't pay for technology, right?

8 A. There's that allegation. That's why we're  
9 here. And I've given opinions, as to with the Court, if  
10 the jury finds that the patents are valid and infringed,  
11 and if it's deemed that a payment should be made, that's  
12 the guidance I've given to the jury for their  
13 consideration.

14 Q. Thank you.

15 MR. BLACK: Pass.

16 THE COURT: Redirect?

17 MR. DACUS: Briefly, Your Honor.

18 May I stay at the board, Your Honor?

19 THE COURT: You may.

20 REDIRECT EXAMINATION

21 BY MR. DACUS:

22 Q. Let's talk, Dr. Ugone, about whether or not  
23 what Mr. Black just said, that TPV doesn't pay for  
24 technology, is actually a true statement.

25 Do you remember the MPEG ATSC pool of patents?

1 A. Yes.

2 Q. That's the -- that's the patents that an  
3 independent expert has determined are essential to  
4 practice the ATSC?

5 A. Yes.

6 Q. Does TPV have a license to those patents?

7 A. Yeah. And, in fact, I reviewed that license.  
8 So TPV has an MPEG LA ATSC license.

9 Q. Okay. So -- so they do pay for technology,  
10 correct?

11 A. Yes.

12 Q. Do you know that TPV also pays a license to a  
13 company called Dolby?

14 A. Yes.

15 Q. Right?

16 A. Yes.

17 Q. So -- so the fact is, TPV has a lot of  
18 licenses and pays for a lot of this technology, don't  
19 they?

20 A. That's correct.

21 Q. They just refuse to pay for technology that  
22 they don't use; isn't that right?

23 A. That's my understanding.

24 Q. Okay. Now, one other thing. These licensees,  
25 like Wistron, BOE, Tatung, Amtran -- Amtran



1 (pronouncing), when they paid -- and we keep saying  
2 1 percent. It's really .75 percent for the TV patents,  
3 correct?

4 A. That's correct, yes.

5 Q. So when they allegedly pay .75 percent, if we  
6 put Mr. Black's door up there, they get 3,000 keys,  
7 don't they?

8 A. Yes.

9 Q. And there's one other point to that. When  
10 this jury decides, if they do decide, that we need four  
11 keys, and they assess whatever reasonable royalty should  
12 be, Hitachi's position is, we still don't get in the  
13 door, correct?

14 A. I'm not sure if I understand your question.

15 MR. DACUS: May I have the ELMO, please?  
16 Can you blow up the second paragraph there? And for the  
17 record, this is PTX 115.

18 THE COURT: You can't blow it up on the  
19 ELMO, Mr. Dacus.

20 MR. DACUS: I'm sorry, Judge.

21 MR. BLACK: Your Honor, may I approach  
22 for a moment?

23 THE COURT: All right.

24 (Bench conference.)

25 MR. BLACK: Looks to me like he's about

1 to argue that we have other patents that they might have  
2 to pay for. It goes against the MIL on dropped claims,  
3 claims which have been severed into another case.

4 MR. DACUS: I'm not going to say that  
5 they've been dropped or dismissed. They claim that they  
6 have a lot of essential patents and that we should have  
7 to pay for them.

8 MR. BLACK: Your Honor, that claim is no  
9 longer in this case.

10 THE COURT: But they're not at issue in  
11 this case, are they?

12 MR. DACUS: No, they're not, but the  
13 problem is, we're not getting 3,000 keys; we're getting  
14 4 keys. And they claim they have other essential  
15 patents that we would have to pay for to get in the  
16 door. That has nothing to do with whether they dismiss  
17 claims or not.

18 MR. BLACK: Well, that will be for the  
19 next case, but there's also an MIL on this.

20 THE COURT: All right. What's the motion  
21 in limine?

22 MR. BLACK: The motion in limine is, no  
23 one can refer to dropped claims.

24 THE COURT: Hang on a second.

25 Is this agreed to, or is this --

1 MR. BLACK: I thought there was an agreed  
2 MIL on that.

3 MR. DACUS: There is, no doubt, but it --

4 MR. BLACK: But it's also irrelevant.

5 THE COURT: Yeah. The parties will also  
6 not offer evidence or elicit testimony referring to any  
7 expert's reports specific to such claims and defenses  
8 and no negative inferences should be asserted or  
9 applied.

10 MR. DACUS: I'm not referring to his  
11 expert report, Your Honor.

12 THE COURT: He's an expert. He's on the  
13 witness stand. You better be referring to his expert  
14 report. That's what he's there to talk about.

15 MR. DACUS: No. He's talking about a  
16 fact in the case. These are demand letters.

17 MR. BLACK: It's not in the case.

18 THE COURT: I find that the motion in  
19 limine covers severed or dropped claims. Those are  
20 severed and dropped, so they're covered by the MIL,  
21 okay?

22 MR. DACUS: Thank you.

23 (Bench conference concluded.)

24 MR. DACUS: May I proceed, Your Honor?

25 THE COURT: Yes, you may.

1 Q. (By Mr. Dacus) So the answer -- or the  
2 question is, Dr. Ugone, those licensees like BOE,  
3 Wistron, Amtran, they get 3,000 keys, correct?

4 A. Right from -- from an economic perspective I'd  
5 agree with you, that the non-assertion clause gives them  
6 3,000 -- the rights to 3,000 patents.

7 Q. And based on Mr. Black's door and the patents,  
8 this jury is only valuing 4 of those keys, correct?

9 A. That's right.

10 Q. All right.

11 MR. DACUS: That's all I have, Your  
12 Honor. I pass the witness.

13 THE COURT: All right. Additional cross?

14 MR. BLACK: No, Your Honor.

15 THE COURT: All right. You may step  
16 down, Dr. Ugone.

17 All right, Defendant. Call your next  
18 witness.

19 MR. DACUS: Your Honor, the Defendants  
20 rest at this time.

21 THE COURT: All right. Defendants having  
22 rested. Does the Plaintiff have a rebuttal case to put  
23 on?

24 MR. BLACK: Yes, we do, Your Honor.

25 THE COURT: Are you prepared to go

1 forward with that at this time?

2 MR. BLACK: We'd like to make a motion,  
3 and we would -- may I approach, Your Honor?

4 THE COURT: I understand the motion needs  
5 to be made outside the presence of the jury.

6 MR. BLACK: Yes.

7 THE COURT: Notwithstanding that motion,  
8 do you have your rebuttal witnesses ready to proceed?

9 MR. PLIES: Yes, Your Honor.

10 THE COURT: All right. Ladies and  
11 Gentlemen, as you've just heard, there's a matter -- and  
12 these occur from time to time in a trial like this.

13 There's a matter I must properly take up  
14 outside your presence.

15 So even though this is -- even though  
16 this is your third break this afternoon -- I don't think  
17 anybody will complain about that -- I'm going to ask you  
18 to retire for the jury room for about 10 minutes. And  
19 then we'll have you back in, and we should be able to at  
20 least start the Plaintiffs' rebuttal case this  
21 afternoon.

22 So I'll ask you to retire to the jury  
23 room at this time. Don't discuss the case among  
24 yourselves.

25 COURT SECURITY OFFICER: All rise.

1 (Jury out.)

2 THE COURT: All right. Does the  
3 Plaintiff have a motion to offer under Rule 50?

4 MR. BLACK: Yes, Your Honor. Give me one  
5 moment to find the paper.

6 THE COURT: We're not in recess, ladies  
7 and gentlemen. Take your seats.

8 You may proceed, Mr. Black.

9 MR. BLACK: Thank you, Your Honor.

10 Plaintiffs move under Rule 50(a) for  
11 judgment as a matter of law with respect to infringement  
12 on the '310, '375, '497, and the '243 patent claims in  
13 suit.

14 We move for judgment as a matter of law  
15 on invalidity with respect to the '310, '375, '497, and  
16 '243 patents-in-suit.

17 That's our motion. We'd like to file a  
18 written submission as well.

19 THE COURT: I'll afford you the same  
20 privilege I afforded the Defendants at the time you  
21 rested.

22 For purposes of clarification, let me  
23 hear a response from the Defendants and clarify  
24 specifically for me whether all four patents are  
25 challenged on the basis of validity. My understanding

1 was that only a portion of them were challenged on  
2 validity grounds.

3 MR. LANDIS: Your Honor, your  
4 understanding is correct. The '243 and the '479, I do  
5 not believe were challenged on invalidity grounds.

6 THE COURT: Those numbers are again what?

7 MR. LANDIS: I'm sorry. The '243 and the  
8 '497. I always get that backwards.

9 THE COURT: So do we have a dispute of  
10 the parties as to whether there's any live challenge  
11 before the jury on those two patents as to invalidity?

12 MR. LANDIS: No, we do not, Your Honor.

13 THE COURT: All right. Proceed with your  
14 response.

15 MR. LANDIS: Your Honor, on infringement  
16 on the '310 and '375 -- and I can't remember if he  
17 listed the rest of them, but the Defendants have  
18 presented ample evidence to go to the jury on those  
19 patents.

20 We've heard from several experts on the  
21 stand who have disagreed and given their own opinions  
22 about elements of the claims of each of those patents  
23 that have not been met, which we believe is sufficient  
24 enough in order for this case to go to the jury and  
25 avoid the judgment as a matter of law that Mr. Black has

1 just presented.

2           On the invalidity portion of the '375 and  
3 the '310, we had Mr. Wechselberger testify about how all  
4 the elements of the claim were met by both the  
5 DigiCipher reference and the -- DigiCipher, in  
6 combination with another reference, which I can't  
7 remember the name of at the moment.

8           We've also had testimony about the fact  
9 that the DigiCipher system was known by others. We have  
10 Mr. Lery, Mr. Hamilton's testimony. I know Your Honor's  
11 already talked to us a little bit about this, that we're  
12 going to be taking this up at some point in time anyway.  
13 But I think, given that testimony of what we've had,  
14 there's ample evidence for which this jury could  
15 conclude that those patents are invalid.

16           MR. BLACK: May I respond, Your Honor?

17           THE COURT: You may, briefly.

18           MR. BLACK: Specifically with respect to  
19 the DigiCipher reference, we -- we move for JMOL on  
20 invalidity. DigiCipher was not established to be prior  
21 art. No reasonable jury could conclude that the  
22 DigiCipher reference was publicly available and prior  
23 art, and the issue should not be submitted.

24           THE COURT: All right. Defendants have  
25 said, in response to a query from the Court, that they



1 do not deem validity at issue with regard to the '243 or  
2 the '497 patent.

3                   You concur with that, Plaintiff?

4                   MR. BLACK: Yes.

5                   THE COURT: Then I'll consider -- though  
6 you recited all four patents in your motion, that's not  
7 a part of the motion, since there is agreement that  
8 there is no live dispute as to validity of those two  
9 patents.

10                   Otherwise, the Defendant -- the  
11 Plaintiffs' motion for judgment as a matter of law is  
12 otherwise overruled. This case is going to the jury,  
13 Ladies and Gentlemen.

14                   All right. Anything else before we bring  
15 the jury back in and start the infringement -- or the  
16 rebuttal -- excuse me -- case?

17                   MR. DACUS: Your Honor, one point of  
18 clarification, and I apologize for being dense, but with  
19 respect to the Court's earlier ruling that the rebuttal  
20 case can rebut our case-in-chief, we want to  
21 understand -- we understand our case-in-chief to have  
22 been an invalidity case that they can rebut, not our  
23 defense to the -- to the infringement allegations for  
24 which they are not entitled to rebut.

25                   I'm just trying to get a clarification

1 from the Court as to whether or not our interpretation  
2 is correct.

3 THE COURT: Well, we may disagree,  
4 Mr. Dacus, but it's my understanding that the rebuttal  
5 case is to rebut what you put on, whether it's  
6 infringement or whether it's invalidity.

7 MR. DACUS: I understand, Your Honor.  
8 And we don't disagree --

9 THE COURT: Just like that's what your  
10 case is, to rebut their case-in-chief.

11 MR. DACUS: Understood. I just wanted  
12 clarification. I'm not --

13 THE COURT: And they have the burden, so  
14 they get to go last.

15 MR. DACUS: Understood.

16 THE COURT: That's the way it works.

17 MR. BLACK: Your Honor, if you'd just  
18 advise us how much time we have left.

19 THE COURT: Give me just a second. We're  
20 getting close.

21 MR. BLACK: I'm aware of that.

22 MR. DACUS: Your Honor, may I -- one  
23 other thing. I'm advised that the slides, with respect  
24 to these -- the rebuttal case, that we received  
25 midafternoon this afternoon, and we've not had a chance

1 to review those.

2 MR. BLACK: We'd be quite happy to  
3 restart in the morning on the rebuttal case when we're  
4 more organized, but we can do it now.

5 THE COURT: Well, let's see what the time  
6 is. Just a minute. I'm told that the Plaintiffs have  
7 41 minutes left and the Defendants have an hour and 54  
8 minutes.

9 Can we get the rebuttal done if we start  
10 in the morning so that we can get this case charged and  
11 to the jury?

12 MR. BLACK: Without a doubt.

13 THE COURT: How long do you honestly  
14 expect the rebuttal case to be, best guess?

15 MR. BLACK: 39 minutes.

16 THE COURT: Mr. Dacus, an hour and 52?

17 MR. DACUS: Well, I could not imagine  
18 that, Your Honor.

19 THE COURT: All right. Well, it does  
20 seem that we've got a little more latitude than I  
21 thought we had, and I don't want to put the Defendants  
22 at any disadvantage by not having an opportunity to  
23 review the Plaintiffs' slides.

24 Therefore, I'm inclined to grant what I  
25 perceive to be the Defendants' request that we delay the

1 start of the rebuttal case until the morning, give you  
2 proper time to review those.

3 MR. DACUS: That's what we would  
4 respectfully ask for, Your Honor.

5 THE COURT: All right. Then we'll bring  
6 the jury back in and send them home. We'll start  
7 promptly at 8:30, and we'll go from there.

8 Anything further?

9 MR. BLACK: No, Your Honor.

10 MR. DACUS: No, Your Honor.

11 THE COURT: Would you bring the jury back  
12 in, Mr. Shadden?

13 COURT SECURITY OFFICER: All rise for the  
14 jury.

15 (Jury in.)

16 THE COURT: Be seated, please.

17 Ladies and Gentlemen, thank you for your  
18 patience and understanding. I've taken up the matter  
19 that needed to be handled outside your presence.

20 I've inquired of the attorneys as to  
21 their best estimation for the time required to cover the  
22 rebuttal case that will be put on by the Plaintiffs, and  
23 I'm satisfied that we can do that with adequate time to  
24 get this case to you tomorrow if we delay the start of  
25 the rebuttal case until in the morning.

1                   And out of an abundance of caution, to  
2 make sure that both sides have an opportunity to review  
3 the materials they expect the other side to use before  
4 in the morning so that nobody's at a disadvantage, I'm  
5 going to delay the start of the rebuttal case until  
6 first thing in the morning.

7                   All that means is that the Defendant  
8 having rested and us having taken up the matters we  
9 needed to and delaying the start of the rebuttal case  
10 until the morning means we're finished today. But I'm  
11 sorry to get you in and out and bring you out just to  
12 send you home again, but that's where we are.

13                   I'm going to release you for the evening.  
14 I'm going to remind you again not to discuss the case  
15 with each other or anyone else, ask you to drive safely  
16 and be careful and ask you to assemble in the jury room  
17 by about 8:20 in the morning so that we can start  
18 promptly at 8:30.

19                   With that, have a good evening, and we'll  
20 see you in the morning. You're excused until tomorrow  
21 morning.

22                   COURT SECURITY OFFICER: All rise.

23                   (Jury out.)

24                   THE COURT: All right, counsel. We stand  
25 in recess until tomorrow morning.

(Court adjourned.)

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CERTIFICATION

I HEREBY CERTIFY that the foregoing is a true and correct transcript from the stenographic notes of the proceedings in the above-entitled matter to the best of my ability.

/s/\_\_\_\_\_  
SHELLY HOLMES, CSR  
Official Court Reporter  
State of Texas No.: 7804  
Expiration Date 12/31/14

\_\_\_\_\_  
Date

/s/\_\_\_\_\_  
SUSAN SIMMONS, CSR  
Official Court Reporter  
State of Texas No.: 267  
Expiration Date 12/31/14

\_\_\_\_\_  
Date